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Draft Supplemental Environmental Impact Statement

Eldorado National Forest Travel Management

Eldorado National Forest
El Dorado, Placer, Amador and Alpine Counties, California

Volume 1



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Eldorado National Forest Travel Management

Draft Supplemental Environmental Impact Statement

El Dorado, Placer, Amador and Alpine Counties

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Abstract: This Draft Supplemental Environmental Impact Statement (DSEIS) documents the analysis of four alternatives for designation of 42 specific existing roads and trails for public motorized use on the Eldorado National Forest. Alternative 1 proposes to designate 42 routes for public motorized use and it includes amending the Eldorado National Forest Land and Resource Management Plan (ENF LRMP), Standard and Guideline 100, to allow for public motorized use on sections of routes affecting the hydrologic connectivity of meadows on 18 of the 42 routes. Alternative 2 proposes no action. Alternative 3 proposes the same activities as Alternative 1 except it does not include a LRMP amendment and proposes implementation of mitigation measures prior to availability of the 18 routes for public use. Alternative 4 is the same as Alternative 1 except it does not include a LRMP amendment, proposes implementation of mitigation measures for portions of 15 routes prior to availability for public use and proposes to leave closed all or portions of 21 routes.

Comments:

Reviewers should provide the Forest Service with their comments during the review period of the draft environmental impact statement. This will enable the Forest Service to analyze and respond to the comments at one time and to use information acquired in the

preparation of the final environmental impact statement, thus avoiding undue delay in the decision-making process. Reviewers have an obligation to structure their participation in the National Environmental Policy Act process so that it is meaningful and alerts the agency to the reviewers' position and contentions. *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519, 553 (1978). Environmental objections that could have been raised at the draft stage may be waived if not raised until after completion of the final environmental impact statement. *City of Angoon v. Hodel* (9th Circuit, 1986) and *Wisconsin Heritages, Inc. v. Harris*, 490 F. Supp. 1334, 1338 (E.D. Wis. 1980). Comments on the draft environmental impact statement should be specific and should address the adequacy of the statement and the merits of the alternatives discussed (40 CFR 1503.3).

The opportunity to Comment ends 45 days following publication of the notice of availability (NOA) in the Federal Register.

Send Comments to: Kathryn D. Hardy, Eldorado National Forest; 100 Forni Road; Placerville, CA 95667; Fax: (530) 621-5297; or email to: dkerickson@fs.fed.us

Summary

The Eldorado National Forest proposes the following designations for the portions of the 42 routes that were closed by Court Order:

1. Designate for public motorized use 13 routes that field surveys conducted in 2011 and 2012 determined did not cross meadows, as defined in the 1989 Eldorado National Forest Land and Resource Management Plan (ENF LRMP). Route 09N54, a secondary access road to Leoni Meadows, would be designated up to the intersection with Route 09N60.
2. Designate for public motorized use 11 routes where field surveys determined the meadow crossings meet Standard and Guideline (S&G) No. 100.
3. Amend the ENF LRMP as amended by the Sierra Nevada Forest Plan Amendment (SNFPA) Standard and Guideline No. 100 (S&G 100) to allow continued public motorized use on 18 routes that field surveys determined to not currently meet S&G 100, and are needed to meet other purposes, and designate those routes for public motorized use.

The area affected by the proposal includes 42 routes on the Eldorado National Forest in California that were proposed for designation for public motorized use in the Eldorado National Forest Public Wheeled Motorized Travel Management Environmental Impact Statement (TM FEIS) and Record of Decision (ROD), March 2008.

The purpose of this supplement to the Environmental Impact Statement for the TMFEIS and ROD, March 2008, is to reconsider in light of the applicable law that portion of the Forest Service's Final Environmental Impact Statement relating to the Riparian Conservation Objective ("RCO") Analysis for RCO #2 Standards and Guidelines #100 pertaining to the meadows on 42 specific routes that were designated for public motorized use in the Record of Decision and subsequently closed under the final court order on Case No. 2:09-CV-02523-LKK-JFM (United States District Court, Eastern District of California, filed 7/31/12).

A Notice of Intent (NOI) to prepare an Eldorado National Forest Travel Management Supplemental Environmental Impact Statement (TM SEIS) was published in the Federal Register on October 12, 2012. The notice asked that comments on the proposed action be received by November 7, 2012. In addition, as part of the public involvement process, information on the proposed action was posted on the Eldorado National Forest web site and mailed to 784 groups and individuals that have voiced an interest in Travel Management on the Eldorado National Forest. The Forest Service held three public Open House sessions, one in Markleeville on October 22, 2012; one in Placerville on October 25, 2012, and one in Jackson on October 29, 2012, to share information about the

proposal and listen to issues and concerns brought up by the public. Approximately 247 letters, emails and comment forms from the public scoping and public Open House sessions were received providing public comments on the proposed action.

The following significant Issues were raised by the public during the scoping period:

1. Route 14N39 Richardson Lake: Richardson Lake is not the main destination for route 14N39. Users enjoy a drive to the summit of Sourdough Hill to enjoy the views and the sunset. The entire route should be designated for public motorized use.

This issue was addressed through a modification to the Proposed Action (Alternative #1). The route is now proposed for designation all the way to the top of Sourdough Hill in Alternative #1.

2. Land and Resource Management Plan Amendment: Amending the Land and Resource Management Plan (LRMP) to allow continued public motorized use in sensitive meadow habitats will result in impacts to hydrology, natural vegetation and wildlife habitat.

Alternatives #3 and #4 were developed to address this issue. Alternatives #3 and #4 would not amend the LRMP.

3. Corrective Actions: The proposed action does not include corrective actions to fix the routes found inconsistent with Standard and Guideline #100, so impacts to meadows will continue to persist.

Alternatives #3 and #4 both address this issue. While Alternatives #3 and #4 do not include a description of the necessary actions required to bring each route into compliance with S&G 100, routes inconsistent with Standard and Guideline 100 would not be available for public use until work has been completed to bring them into compliance.

Four alternatives are analyzed in this SEIS:

Alternative #1

Described above as the Proposed Action.

Alternative # 2: No Action

The same portions of the 42 routes that were closed under the court order would remain closed to public motorized use. There would be no amendments to the ENF LRMP.

Alternative #3: The Preferred Alternative

Alternative 3 was developed in response to public comments received during the scoping period for this SEIS. There would not be any amendments to the LRMP under this alternative.

Alternative 3 is similar to Alternative 1 with the following exceptions:

The LRMP would not be amended for the routes as proposed in Alternative 1: 09N01, 09N08, 09N82 (16E26), 09N83 (19E01), 09N95, 10N01, 0.5 miles of 10N13 (Schneider Camp Road), 6.8 miles of 10N13 (17E73; Strawberry Cr. 4WD trail), 10N14, 10N21 (16E27; Long Canyon 4WD trail), 10N98, 11N23F (16E33), 11N26F (16E21; Barrett 4WD trail), 11NY32, 14N39, 17E16, 17E19, 17E24, 17E28. Instead, these routes would continue to be part of the NFTS but would not be designated for public motorized use and identified on a Motor Vehicle Use Map (MVUM) until the routes are in compliance with Standard and Guideline 100 as it pertains to meadows. This alternative identifies these routes for future corrective actions, but does not analyze the actions necessary to bring each into compliance with Standard and Guideline 100. Corrective actions would be proposed and analyzed as part of future NEPA analyses, as funding to implement corrective actions becomes available. After corrective actions have been analyzed and implemented, the route would appear as a designated public motorized road or trail on the next revision of the MVUM.

Alternative #4

Alternative 4 was developed in response to public comments received during the scoping period for this SEIS. There would not be any amendments to the LRMP under this alternative.

Alternative 4 is similar to Alternative 1 except for the following:

The Eldorado National Forest proposes to designate the following routes or portions of routes for public motorized use: 09N54 (open up to intersection with 09N60, closed to public motorized use past that point), 10N06, 10N26, 11N09A, 11N22, 11N70, 13N24, 09N15, 10NY05 (open from 10NY04 to a point just before drainage near 16E27) and 14N27.

The following routes or portions of routes that are currently closed by court order would continue to be a part of the NFTS but would not be designated for public motorized use and identified on a MVUM until the routes are in compliance with Standard and Guideline 100 as it pertains to meadows: 09N01, 09N08, 10N13 (open to a spot suitable for camping just north of Schneider Camp meadow, closed to public motorized use

beyond that point), 10N14, 10N21 (16E27) (open except for the section between 10NY04E and the section currently open on the west end), 11N26F (16E21), 11NY32, and 14N05 (open up to McKinstry Trailhead, closed to public motorized use beyond the trailhead). This alternative identifies these routes for future corrective actions, but does not analyze the actions necessary to bring each route into compliance with Standard and Guideline 100. Corrective actions would be proposed and analyzed as part of future NEPA analyses, as funding to implement corrective actions becomes available. After corrective actions have been analyzed and implemented, the route would appear as a designated public motorized road or trail on the next revision of the MVUM.

The following routes or portions of routes that are currently closed by court order would continue to be a part of the NFTS but would not be designated for public motorized use and identified on a MVUM until mitigation for resource concerns not directly related to Standard and Guideline 100 and meadows is implemented: 08N23B, 12NY15, 08N35, 10N32, and 10NY06. The reasons mitigation is indicated for these routes are documented in the project record, but the mitigation is not analyzed in this document. Mitigation would be proposed and analyzed as part of future NEPA analyses, as funding to implement corrective actions becomes available. After the mitigation has been analyzed and implemented, the route would appear as a designated public motorized road or trail on the next revision of the MVUM. Portions of these routes that are currently open under the court order would remain open for public motorized use.

The following portions of routes that are not currently closed by court order would continue to be a part of the NFTS but would not be designated for public motorized use and identified on a MVUM until mitigation for resource concerns not directly related to Standard and Guideline 100 and meadows is implemented: western 2.26 miles of 09N04 (17E79), and 10N03.

The portions of the following routes that are currently closed to public motorized use under court order would remain closed to public motor vehicle use: 09N54 past intersection with 09N60, 10NY04, 17E12, 14N58, 17E17, 17E21, 09N82 (southern portion 16E26), 09N83 (19E01), 09N95, 10N01 (10N01B), 10N13 (17E73), closed beyond Schneider Camp), 10N21 (portion between 10NY04E and the section currently open on the west end), 10N98, 11N23F (16E33), a portion of 12NY06, 14N05 past McKinstry Trailhead, 14N39, 17E16, 17E19, 17E24 (west and east portions), and 17E28.

A portion of 12NY06 that is not currently closed to public motorized use by court order would be closed in this alternative.

Summary of Effects to Hydrology and Recreation

The Hydrology Analysis indicates that there are 24 routes where there is no difference between the alternatives with regard to Standard & Guideline (S&G) #100. This is because 14 routes do not cross or border meadows and 10 routes cross or border meadows that meet S&G #100.

There are 18 routes – the routes that have caused at least one meadow to not meet S&G #100 - where there are differences between the alternatives with regard to S&G #100. Alternative 1 (Proposed Action) would create a *Forest Plan Amendment* that would exempt those 18 routes from S&G #100. Alternatives 2, 3, and 4 would result in zero, 18, and seven of those 18 routes meeting S&G #100, respectively. This also means that Alternatives 2, 3, 4 would result in 18, 0, and 13 routes not meeting S&G #100, respectively.

It would likely take a number of years for Alternatives 3 or 4 to result in all routes meeting S&G #100.

The above results are summarized in Table 3.9 and Figure 3.9.

The Recreation Analysis shows that the alternatives differ substantially as to effects to recreation users. Alternative 1, the Proposed Action, results in the highest number of miles of roads and trails rated high in recreation value open to public motorized use initially (95.8 miles). Alternative 3 results in the same number of miles of high value recreation routes designated for public motorized use, however only 53.4 of those miles would be open initially, with an additional 42.4 miles continuing to be part of the NFTS but not designated for public motorized use and identified on a Motor Vehicle Use Map (MVUM) until corrective actions are analyzed and implemented. Alternative 4 would result in 3.7 miles of high recreation value routes open to public motorized use, with an additional 13.4 miles continuing to be part of the NFTS but not designated for public motorized use and identified on a Motor Vehicle Use Map (MVUM) until corrective actions or mitigation are analyzed and implemented. In Alternative 2, No Action, only the 29.97 miles of high value recreation routes that were not closed by court order would remain open, with 65.85 miles of high value recreation routes closed to public motorized use.

The effects on 4WD and motorcycle riding opportunities, particularly high country routes over 6,000 feet in elevation, all rated high in recreation value, also vary substantially between alternatives. In Alternative 1, the proposed action, 42.06 miles of 4WD routes, all rated high in recreation value, would be open. Approximately 18.47 miles of high

country motorcycle routes would be open, all rated medium to high in recreation value. In Alternative 3, the same number of high country 4WD trails would be designated for public motorized use, however only 11.22 miles would be open initially, with an additional 30.84 miles added to the MVUM once corrective actions are analyzed and implemented. All of the high country motorcycle trails, approximately 18.47 miles, would be designated open but not added to the MVUM until after corrective actions are analyzed and implemented. In Alternative 4, 8.96 miles of high country 4WD trails would remain open, and an additional 7.85 miles of high country 4WD trails would be designated open but not added to the MVUM until after corrective actions and mitigation are analyzed and implemented. Approximately 53 percent of the total 4WD trail opportunities on the Eldorado National Forest over 6,000 feet in elevation would be closed, and all of the high country motorcycle trails, approximately 18.47 miles, representing 90 percent of the total motorcycle trail opportunities on the Eldorado National Forest over 6,000 feet in elevation would be closed. In Alternative 2, 11.22 miles of high country 4WD trails would remain open, and 30.84 miles of high country 4WD trails would be closed. This equates to the closure of 65 percent of the total 4WD trail opportunities on the Eldorado National Forest over 6,000 feet in elevation. All of the high country motorcycle trails, approximately 18.47 miles, rated medium to high recreational value, would be closed to public motorized use. This represents 90 percent of the total motorcycle trail opportunities on the Eldorado National Forest over 6,000 feet in elevation.

Table of Contents

Summary	i
Table of Contents	vii
Chapter 1. Purpose of and Need for Action.....	1
Introduction	1
Document Structure.....	1
Background	2
Purpose and Need for Action	6
Proposed Action	6
Decision Framework	8
Forest Plan Direction.....	8
Public Involvement.....	8
Issues	9
Chapter 2. Alternatives, Including the Proposed Action.....	11
Introduction	11
Development of the Proposed Action.....	11
Alternatives Considered in Detail	12
Alternative 1 - Proposed Action.....	12
Alternative 2 – No Action	16
Alternative 3 – Preferred Alternative	17
Alternative 4.....	17
Alternatives Considered but Eliminated from Detailed Study	19
Comparison of Alternatives.....	19
Comparison of Alternatives: Effects by Resource Area	24

Chapter 3. Affected Environment and Environmental Consequences	27
Hydrology.....	28
Affected Environment.....	28
Environmental Consequences	44
Riparian Conservation Objective Analysis	54
Recreation.....	55
Affected Environment.....	55
Direct Effects to Recreation	68
Indirect Effects to Recreation.....	71
Chapter 4. Consultation and Coordination.....	75
Preparers and Contributors.....	75
Distribution of the Environmental Impact Statement.....	76
Glossary	77
Literature Cited.....	79
Appendices	81
Appendix A: Crosswalk of Road and Trail Numbers.....	81
Appendix B: Scoping Comment Summary	83
Appendix C: List of Commenters During Scoping	95

Chapter 1. Purpose of and Need for Action

Introduction

The purpose of this supplement to the Environmental Impact Statement (EIS) for the Eldorado National Forest Public Wheeled Motorized Travel Management EIS and Record of Decision (ROD), March 2008, is to reconsider in light of the applicable law that portion of the Forest Service's Final Environmental Impact Statement relating to the Riparian Conservation Objective ("RCO") Analysis for RCO #2 Standards and Guidelines #100 pertaining to the meadows on 42 specific routes that were designated for public motorized use in the Record of Decision and subsequently closed under the final court order on Court Order: Case No. 2:09-CV-02523-LKK-JFM (United States District Court, Eastern District of California, filed 7/31/12). All other portions of the Forest Service's original decision, including the parts of the 42 routes that do not intersect meadows, remain in effect.

This Supplemental Environmental Impact Statement (SEIS) addresses only the additional information and analysis relevant to the 42 specific routes, meadows, and Standard and Guideline #100 in the Eldorado National Forest. For a complete discussion of other resources and effects, including cumulative effects and monitoring requirements, the reader is advised to review the Eldorado National Forest Public Wheeled Motorized Travel Management EIS and ROD, March 2008, available on the Eldorado National Forest website <http://www.fs.usda.gov/eldorado/> or by request from 100 Forni Road, Placerville, CA 95667.

Document Structure

The Forest Service has prepared this SEIS in compliance with the National Environmental Policy Act (NEPA) and other relevant Federal and State laws and regulations. This SEIS discloses the direct and indirect environmental impacts that would result from the proposed action and alternatives. The document is organized as follows:

- **Chapter 1. Purpose and Need for Action:** This chapter briefly describes the proposed action, the need for that action, and other purposes to be achieved by the proposal. This section also details how the Forest Service informed the public of the proposed action and how the public responded.
- **Chapter 2. Alternatives, including the Proposed Action:** This chapter provides a detailed description of the agency's proposed action as well as alternative actions that were developed in response to comments raised by the public during scoping. The end of the chapter includes a summary table comparing the proposed action and alternatives with respect to their environmental impacts.

- **Chapter 3. Affected Environment and Environmental Consequences:** This chapter describes the environmental impacts of the proposed action and alternatives on recreation and hydrology.
- **Chapter 4. Consultation and Coordination:** This chapter provides a list of preparers and agencies consulted during the development of the environmental impact statement.
- **Glossary:** This section provides definitions for terms used throughout the document.
- **Literature Cited:** This section provides details on literature referenced throughout the SEIS.
- **Appendices:** The appendices provide more detailed information to support the analyses presented in the SEIS.

Background

In March, 2008, the US Forest Service completed the Eldorado National Forest Public Wheeled Motorized Travel Management EIS and ROD (ENF TMEIS). A comprehensive background Summary of Eldorado National Forest Travel Management Direction may be found on page 1-2 of that document.

Relevant Information from the ENF TMEIS includes the following:

- The 2008 TMEIS and ROD designated roads and trails to be open for public motor vehicle use and to prohibit cross country travel. The decision designated the class of vehicle allowed and season of use for each route.
- Each of the action alternatives except Alternative E included non-significant Forest Plan amendments for various combinations of routes crossing meadows – they are listed in Chapter 2 of the TMEIS in the description of each alternative.
- The selected alternative, Alternative Modified B, included 20 routes through meadows in the non-significant Land and Resource Plan (LRMP) Amendment for that alternative. However, only 19 of those routes were designated for public wheeled motorized travel under the Travel Management Decision. An additional 23 routes with segments less than .05 miles through any meadow encountered along the route were designated but have no Forest Plan amendment. Numerous other routes that bordered or crossed meadows were not designated for public motor vehicle use.
- The Sierra Nevada Forest Plan Amendment Final Supplemental Environmental Impact Statement Record of Decision, January, 2004 (SNFPA) amended the ENF LRMP, established Riparian Conservation Objectives (RCOs), standards and guidelines (particularly S&G 100), and direction to complete a RCO Analysis for all new activities that might affect Riparian Conservation Areas (RCAs). In compliance with the Record of Decision (ROD) for the SNFPA, the Forest completed the “Reconciliation: Sierra Nevada Forest Plan Amendment 2004 ROD & Eldorado Forest Plan” to clearly state that the Standards and Guidelines for Management Area

28 (Meadows) from the 1989 ENF LRMP were replaced by the SNFPA meadow allocation and Standards and Guidelines. The RCO Analysis for the ENF TMEIS included the criterion that routes that bisect or go through meadows have the potential of not meeting RCO #2. The identification of individual routes was completed using the Forest's Geographic Information System (GIS) database.

- In Table 7 of the RCO analysis (a part of the project record for the EIS), there is a listing of 42 routes through meadows, which includes the 19 routes designated in Modified Alternative B, plus another 23.
- The ENF TMEIS included a monitoring strategy for meadows: "Within two years of implementation, commence field monitoring of meadows greater than one acre in size that have a road or trail within the meadow or that bisects the meadow. Public wheeled motor vehicle use through meadows can impair hydrologic function. If adverse impacts to hydrologic function are detected, appropriate measures (including closure) will be employed to restore proper functioning condition."

Following the ENF TMEIS:

- The Eldorado National Forest issued a Motor Vehicle Use Map in April, 2009, showing the designated routes as established through the ENF TMEIS ROD. The map was updated in 2010 and again in 2012. The 2012 MVUM included the changes in routes as identified in the 7/31/12 decision of the Eastern District Federal Court, Judge Karlton.
- In keeping with the final decision in the ENF TMEIS ROD, a number of routes or portions of routes that were previously classified as National Forest System roads but will be managed as trails were changed on the Forest Transportation System to 4WD Trails. These routes received a new trail number. The routes are tracked in this Supplemental EIS by the original road number (contains an N in the number) with the new trail number (contains an E in the number) in parenthesis. On the GIS map set accompanying this document, the routes are labeled with the new trail number, and the associated old road number in parentheses.
- Following the signing of the ENF TMEIS ROD there were 26 administrative appeals. These appeals were resolved and the decision upheld by the Regional Forester.
- In 2009 a complaint was filed with the Eastern District Federal Court alleging a number of deficiencies in the EIS.
- In 2010, the Eldorado National Forest contracted some monitoring for meadows associated with designated routes. The results of the monitoring indicated that some meadows mapped in GIS were not actually meadows. It also indicated that some meadows were in poor condition, although it did not specifically conclude that designated routes were the cause of the meadows being in poor condition.
- On May 26, 2011, Judge Karlton issued an opinion (Court Case No. 2:09-CV-02523-LKK-JFM) that raised an issue as to whether the Forest Service had adequately

explained why ephemeral streams could not function as suitable, non-breeding California red-legged frog habitat. On September 1, 2011, the Forest Service received US Fish and Wildlife Service concurrence that the Forest Service's designation of routes in Alternative Modified B in the Travel Management Decision is not likely to adversely affect the California red-legged frog. The Forest Service prepared a new Biological Assessment and the plaintiffs agree this issue has been resolved. Therefore the issue will not be addressed in this SEIS.

- In its opinion dated May 26, 2011, the Court also found the Forest Service failed to comply with the National Forest Management Act ("NFMA") in connection with its analysis and designation of routes encountering meadows. Specifically, the court found that the Forest Service had designated 42 routes through meadows which were inconsistent with certain standards and guidelines in both the Forest's 1989 Land and Resource Management Plan (LRMP) and standards and guidelines within the 2004 Sierra Nevada Forest Plan Amendment (SNFPA), which amended the ENF LRMP. The Court pointed out that the error in the agency's Travel Management Decision was limited to 42 routes designated for public wheeled motorized travel that have some segment(s) that go through meadows.
- As planned in the ENF TMEIS Monitoring Strategy, field surveys were conducted in 2011 and 2012 at the 95 meadows crossed or bordered by the 42 routes in order to determine compliance with Standard and Guideline #100 of the Sierra Nevada Forest Plan Amendment Record of Decision (SNFPA ROD, 2004) as it pertains to meadows. Standard and Guideline #100 states: "Maintain and restore the hydrologic connectivity of streams, meadows, wetlands, and other special aquatic features by identifying roads and trails that intercept, divert, or disrupt natural surface and subsurface water flow paths. Implement corrective actions where necessary to restore connectivity." The field surveys were completed by a Hydrologist and a Hydrologic Technician. The results of the surveys are summarized in the Hydrology section in Chapter 3 of this SEIS.
- On February 14, 2012, the Eastern District Court judge remanded the portion of the decision that designated 42 roads through meadows for motorized traffic for reconsideration in light of the applicable law. The Forest Service was directed to submit a proposed order within 30 days that sets aside only that portion of its decision that designated the 42 roads to the degree they go through meadows, and not affecting the sections of those same roads that do not go through meadows, unless they cannot otherwise be reached. Seasonal closures currently in place were to be extended until further order of the court.
- A final order on Case No. 2:09-CV-02523-LKK-JFM was issued by the Eastern District Court judge on July 31, 2012. That order "sets aside and remands for reconsideration in light of the applicable law that portion of the Forest Service's Final Environmental Impact Statement relating to the Riparian Conservation Objective (RCO) Analysis for RCO #2 Standards and Guidelines #100 pertaining to the

meadows on the 42 routes... Until such time as the Forest Service completes supplemental environmental analysis pursuant to the National Environmental Policy Act (NEPA) as provided above, public wheeled motorized vehicle use of a route listed ... that intersects a meadow shall be prohibited or limited ... All other portions of the Forest Service's decision, including the parts of the 42 routes that do not intersect meadows, remain in effect." The order also directed the Forest Service to revise the Motor Vehicle Use Map (MVUM) to incorporate changes called for in the order. The revised MVUM's were prepared and made available to the public in September, 2012. The Forest is continuing to manage the designated route system to the present time under the 2012 MVUM.

Purpose and Need for Action

The underlying needs for this proposal include:

1. There is a need to comply with the United States District Court for the Eastern District of California Case No. 2:09-CV-02523-LKK-JFM, Court Order filed 07/31/12 in which the Court “set aside and remanded for reconsideration in light of the applicable law that portion of the Forest Service’s Final Environmental Impact Statement relating to the Riparian Conservation Objective (“RCO”) Analysis for RCO #2 Standards and Guidelines #100 pertaining to the meadows on the 42 routes.”
2. There is a need to determine whether public wheeled motor vehicle use will be allowed on the 42 specific routes, or some portion of these routes, designated for such use in the 2008 TM FEIS ROD that were found by the court to be inconsistent with the Eldorado National Forest Land and Resource Management Plan, 1989 (ENF LRMP) Standards and Guidelines, as amended by SNFPA.

The action must also achieve the following purposes from the ENF LRMP and the National Travel Management Rule of 2005:

- providing wheeled motorized access to existing developed and dispersed recreation opportunities on the Forest,
- providing a diversity of wheeled motorized recreation opportunities, and
- protecting natural resources

as outlined in the ENF TMEIS, Purpose and Need for Action, page 1-5 through 1-6.

Proposed Action

The Proposed Action is similar to the proposed action that was circulated for public scoping with a few minor corrections and a change in the proposal for route 14N39, Richardson Lake. The proposed action circulated in October 2012 proposed this route for designation for public motorized use up to Richardson Lake, with the portion from Richardson Lake to the top of Sourdough Hill closed to public motorized use. Comments were received during the scoping period that stated the main destination of that route was not Richardson Lake but the view from the top of Sourdough Hill, requesting designation of the entire route. In the proposed action carried forward into this SEIS, the entire route would be designated for public motorized use.

The Forest Service conducted field surveys in 2011 and 2012 at the meadows on National Forest land crossed or bordered by the 42 routes to determine compliance with Standard and Guideline #100 of the Sierra Nevada Forest Plan Amendment Record of Decision (SNFPA ROD 2004) as it pertains to meadows.

For the following 14 routes that USFS field surveys determined did not cross or border meadows:

1. Designate 08N23B, 08N35, 10N06, 10N26, 10N32, 10NY04, 11N09A, 11N22, 11N70, 12NY15, and 13N24 as “NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.” Designate western 2.2 miles of 09N04 (17E79) as “NFTS 4WD Trail: Open to High Clearance Vehicles.” Designate 09N54 (Leoni Meadows) up to the intersection with 09N60 as “NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.” Route 09N54 is a secondary access road to Leoni Meadows. Designate 17E12 as “NFTS Trail: Open to Motorcycles only.”

For the following 10 routes where the meadow crossing meets Standard and Guideline 100:

2. Designate 09N15, 10NY05, 10NY06, 12NY06, 14N05, 14N27 and 14N58 as “NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.” Designate 10N03 as “NFTS Road: Open to Highway Legal Vehicles only.” Designate 17E17 and 17E21 as “NFTS Trail: Open to Motorcycles only.”

For the following 18 routes (10N13 is described in two segments) that the field survey determined to not currently meet Standard and Guideline 100, and are needed to meet other purposes:

3. Amend the Eldorado National Forest Plan as amended by SNFPA S&G No. 100 to allow continued public motorized use on these routes and designate 09N01, 09N08, 09N95, 10N01 (B), 0.5 miles of 10N13, 10N14, 10N98, and 14N39 as “NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.” Designate 11NY32 as “NFTS Road: Open to Highway Legal Vehicles only.” Designate 09N82 (16E26), 09N83 (19E01), 6.8 miles of 10N13 (17E73), 10N21 (16E27), 11N23F (16E33), 11N26F (16E21), and 17E24 as “NFTS 4WD Trail: Open to High Clearance Vehicles.” Designate 17E16, 17E19 and 17E28 as “NFTS Trail: Open to Motorcycles only.”

The proposed action is described in more detail in Chapter 2 under Alternative 1.

Decision Framework

Given the purpose and need, the deciding official reviews the proposed action, the other alternatives, and their environmental consequences, in order to determine whether to implement the proposed action as described, select a different alternative or take no action at this time.

Forest Plan Direction

The proposed action and alternatives are guided by the Eldorado National Forest Land and Resource Management Plan (ENF LRMP), as amended by the Sierra Nevada Forest Plan Amendment Final Supplemental Environmental Impact Statement Record of Decision, January, 2004 (SNFPA). The Forest is subdivided into land allocations (Management Areas) with established desired conditions and associated management direction (standards and guidelines). The land allocation that applies to this proposal is Management Area 28 – Meadow Management (ENF LRMP, pp. 4-277 through 4-282). The definition of a meadow from the 1989 Land Resource Management Plan (page 4-90) was used: “A meadow is defined as a grassy opening, 0.1 acres or larger, dominated by perennial sedges, rushes, and grasses (wet meadow) or perennial grasses and forbs (dry meadow).” The Standards and Guidelines that apply to management of meadows were amended by the SNFPA. The SNFPA provided new standards and guidelines that replaced the standards and guidelines of the original 1989 ENF LRMP for meadows.

Standard & Guideline #100 on page 63 of the 2004 SNFPA ROD applies directly to the purpose and need of this SEIS. Standard and Guideline #100 states: “Maintain and restore the hydrologic connectivity of streams, meadows, wetlands, and other special aquatic features by identifying roads and trails that intercept, divert, or disrupt natural surface and subsurface water flow paths. Implement corrective actions where necessary to restore connectivity.”

Public Involvement

A Notice of Intent (NOI) to prepare an Environmental Impact Statement for the Eldorado National Forest Travel Management Supplemental Environmental Impact Statement was published in the Federal Register on October 12, 2012. The notice asked that comments on the proposed action be received by November 7, 2012. In addition, as part of the public involvement process, information on the proposed action was posted on the Eldorado National Forest web site and emailed to 784 groups and individuals that have voiced an interest in travel management on the Eldorado National Forest. The Forest Service held three public Open House sessions, one in Markleeville on October 22, 2012; one in Placerville on October 25, 2012, and one in Jackson on October 29, 2012, to share information about the proposal and listen to issues and concerns brought up by the public. Approximately 247 letters, emails and comment forms from the public scoping and

public Open House sessions were received providing public comments on the proposed action.

Issues

Comments from the public, other agencies, and tribes were used to formulate issues concerning the proposed action. The Forest Service separated the issues into two groups: significant and non-significant. Significant issues were defined as those directly or indirectly caused by implementing the proposed action. Non-significant issues were identified as those: 1) outside the scope of the proposed action; 2) already decided by law, regulation, Forest Plan, or other higher level decision; 3) irrelevant to the decision to be made; or 4) conjectural and not supported by scientific or factual evidence. The Council on Environmental Quality (CEQ) NEPA regulations explain this delineation in Sec. 1501.7, "...identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review (Sec. 1506.3)...". A Summary of Public Comments received during the scoping period and the issues that were identified may be found in Appendix B of this document and in the project record located at the Eldorado National Forest Supervisor's Office, Placerville, California.

Comments were received during scoping questioning the field methodology used to determine effects to meadows:

- 1. Field Survey Methodology:** In particular, they indicated they felt the methodology for assessing compliance with Standard & Guideline #100 was not adequate for that purpose and did not follow General Technical Report WO-86a.

This issue was determined to be conjectural and, therefore not carried forward in this SEIS. The methodology in General Technical Report WO-86a, which provides a detailed characterization of groundwater dependent features, does not specifically evaluate compliance with Standard & Guideline #100. As a result, a methodology was developed for this purpose as described in Table 3.6 of this SEIS. In addition, General Technical Report WO-86a is only intended for a few types of features that are supported by groundwater (springs, peatlands, and other wetlands) and not intended for meadows and wetlands that are not supported by groundwater (i.e. supported by surface runoff and precipitation). The methodology developed for evaluating compliance with Standard & Guideline #100 does apply to meadows and wetlands that are not supported by groundwater, and these types of features were within the scope of features that might be encountered during the field surveys

The Forest Service identified the following significant issues from the public comments during scoping:

1. Route 14N39 - Richardson Lake: Richardson Lake is not the main destination for route 14N39. Users enjoy a drive to the summit of Sourdough Hill to enjoy the views and the sunset. The entire route should be designated for public motorized use.

This issue was addressed through a modification to the Proposed Action (Alternative #1). The route is now proposed for designation all the way to the top of Sourdough Hill in Alternative #1.

2. Land and Resource Management Plan Amendment: Amending the Land and Resource Management Plan (LRMP) to allow continued public motorized use in sensitive meadow habitats will result in impacts to hydrology, natural vegetation and wildlife habitat.

Alternatives #3 and #4 were developed to address this issue. Alternatives #3 and #4 would not amend the LRMP.

3. Corrective Actions: The proposed action does not include corrective actions to fix the routes found inconsistent with Standard and Guideline #100 so impacts to meadows will continue to persist.

Alternatives #3 and #4 both address this issue. While Alternatives #3 and #4 do not include a description of the necessary actions required to bring each route into compliance with S&G 100 as it pertains to meadows, routes inconsistent with Standard and Guideline 100 would not be available for public use until work has been completed to bring them into compliance.

Chapter 2. Alternatives, Including the Proposed Action

Introduction

This chapter describes and compares the alternatives considered for the Eldorado National Forest Travel Management Supplemental Environmental Impact Statement. It describes both alternatives considered in detail and those eliminated from detailed study. The end of this chapter presents the alternatives in tabular format so that the alternatives can be readily compared. One of the alternatives, Alternative 1, includes an amendment to the Eldorado National Forest Land and Resource Management Plan (ENF LRMP).

Development of the Proposed Action

In order to address the purpose and need, the 42 routes were surveyed in 2011 and 2012 in order to: 1.) reassess the location of the meadows on National Forest land that border or cross the 42 routes, and 2.) determine whether those routes were in compliance with Standard and Guideline #100 of the ENF LRMP as amended by the Sierra Nevada Forest Plan Amendment Record of Decision (SNFPAROD 2004) as it pertains to meadows. Standard and Guideline #100 states: *“Maintain and restore the hydrologic connectivity of streams, meadows, wetlands, and other special aquatic features by identifying roads and trails that intercept, divert, or disrupt natural surface and subsurface water flow paths. Implement corrective actions where necessary to restore connectivity.”*

The following table summarizes the field surveys of the 42 routes in 2011 and 2012.^{1,2}

	List of routes ²	Number of routes
Routes that do <u>not</u> cross or border meadows on National Forest land.	08N23B, 08N35, 09N54, 09N04 (17E79), 10N06, 10N26, 10N32, 10NY04, 11N09A, 11N22, 11N70, 12NY15, 13N24, 17E12 (Lovers Leap Trail).	14
Routes that only cross or border meadows that meet Standard & Guideline #100.	09N15, 10N03, 10NY05, 10NY06, 12NY06, 14N05, 14N27, 14N58, 17E17, 17E21.	10
Routes that cross or border at least one meadow that does <u>not</u> meet Standard & Guideline #100.	09N01, 09N08, 09N82 (16E26), 09N83 (19E01), 09N95, 10N01, 10N13 (17E73; Strawberry 4WD trail), 10N14, 10N21 (16E27; Long Canyon 4WD trail), 10N98, 11N23F (16E33), 11N26F (16E21; Barrett 4WD trail), 11NY32, 14N39, 17E16, 17E19, 17E24, 17E28.	18

¹ The field surveys do not include meadows on private land.

² Alternate route numbers and names are shown in parenthesis.

The Proposed Action was developed based on the information summarized in the previous table. Analysis supporting the determination as to whether routes meet Standard and Guideline 100 is provided in Chapter 3 under Hydrology.

Alternatives Considered in Detail

Based on the issues identified through public comment on the proposed action, the Forest Service developed three alternative proposals that achieve the purpose and need specified in the July 31, 2012 Court Order, including the Proposed Action. In addition, the Forest Service is required to analyze a No Action alternative. The alternatives are described in detail below.

Alternative 1 - Proposed Action

Minor changes have been made to Alternative 1 since the circulation of the Proposed Action during scoping in October, 2012. Route 09N54, a secondary access road to Leoni Meadows, was moved to category of “No Meadows on National Forest Land” since the meadow is located on private property. Routes 14N05 and 14N58 were moved into the category of Meadows meeting Standard and Guideline 100, and routes 08N35, 09N04 (17E79), 10N32 and 11N09A were moved to the category of “No Meadows on National Forest Land” based on review of information collected and additional field surveys.

In response to public scoping, there was also a change in the proposal for route 14N39, Richardson Lake. The proposed action circulated in October 2012 proposed this route for designation for public motorized use up to Richardson Lake, with the portion from Richardson Lake to the top of Sourdough Hill closed to public motorized use. Comments were received during the scoping period that stated the main destination of that route was not Richardson Lake but the view from the top of Sourdough Hill, requesting designation of the entire route. In the proposed action carried forward into this SEIS, the entire route would be designated for public motorized use.

A Forest Plan Amendment is included in Alternative 1, the Proposed Action, to provide an exception to Standard and Guideline #100 of the ENF LRMP Sierra Nevada Forest Plan Amendment (SNFPA) to allow for public motorized use on sections affecting the hydrologic connectivity of meadows until corrective actions are analyzed and implemented at some time in the future.

The Eldorado National Forest proposes to designate the following routes for public motorized use:

Table 2.1 Route Designations under Alternative 1 – Proposed Action

Designate for public motorized use (Route found to not cross or border a meadow)			
<i>Route Number</i>	<i>Route Name</i>	<i>Designation</i>	<i>LRMP Amendment</i>
08N23B	Prothro Headwater	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	An ENF LRMP Amendment is not required for these routes
08N35	Upper West Panther	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	
9N04 - western portion (17E79)*	Pardoe 4WD	NFTS 4WD Trail: Open to High Clearance Vehicles.	
09N54	Leoni	Designate only the portion up to intersection with 09N60 as NFTS Road: Open to All Highway and Non-Highway Legal Vehicles	
10N06	Pebble Ridge	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	
10N26	Sciots Creek	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	
10N32	South Beanville Creek	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	
10NY04	Middle Long Canyon	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	
11N09A	Bryan Creek	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	
11N22	Strawberry Creek	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	
11N70	McManus	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	
12NY15	West Robbs Peak	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	

13N24	Dry Lakes	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	An ENF LRMP Amendment is not required for these routes
17E12	Lovers Leap Motorcycle Trail	NFTS Trail: Open to Motorcycles only.	
Designate for public motorized use (Meadow/s meeting S&G 100)			
09N15	Leek Springs Valley	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	
10N03	Devil’s Gate Summer Home	NFTS Road: Open to All Highway Legal Vehicles.	
10NY05	Rocky Road	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	
10NY06	Upper Long Canyon	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	
12NY06	Crystal Shortcut	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	
14N05	McKinstry Lake	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles	
14N27	Bunker Meadow	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	
14N58	Jerrett	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	
17E17	Bucks Pasture Motorcycle Trail	NFTS Trail: Open to Motorcycles only.	
17E21	Horse Canyon Trail	NFTS Trail: Open to Motorcycles only.	

Designate for public motorized use with LRMP Amendment			
09N01	Blue Lakes	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles	In Alternative 1, these routes would be designated for public motorized use with an exception to Standard and Guideline #100 of the ENF LRMP SNFPA to allow for public motorized use on sections affecting the hydrologic connectivity of meadows until corrective actions are analyzed and implemented.
09N08	Stockton Camp	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles	
09N82 – southern portion (16E26)*	Squaw Ridge 4WD Trail	NFTS 4WD Trail: Open to High Clearance Vehicles	
09N83 (19E01)*	Clover Valley/Deer Valley Trail	NFTS 4WD Trail: Open to High Clearance Vehicles	
09N95	Cosumnes Head	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles	
10N01 (10N01B) *	Spur off Woods Lake	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles	
10N13 – 1.1 miles	Schneider Camp Road	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles	
10N13 – 6.8 miles (17E73)*	Strawberry 4WD Trail	NFTS 4WD Trail: Open to High Clearance Vehicles	
10N14	Mule Canyon	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles	
10N21 (16E27)*	Long Canyon 4WD Trail	NFTS 4WD Trail: Open to High Clearance Vehicles	
10N98	Jim Quinn Spur	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles	
11N23F (16E33)*	North Shanty Spur	NFTS 4WD Trail: Open to High Clearance Vehicles	
11N26F	Barrett Lake	NFTS 4WD Trail: Open to High Clearance	

(16E21)*	4WD Trail	Vehicles
11NY32	47 Milestone	NFTS Road: Open to All Highway Legal Vehicles
14N39	Richardson Lake	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles
17E16	Little Round Top	NFTS Trail: Open to Motorcycles only
17E19	Allen's Camp Motorcycle Trail	NFTS Trail: Open to Motorcycles only
17E24 (west and east portions)	Carson Emigrant National Recreation Trail	NFTS 4WD Trail: Open to High Clearance Vehicles
17E28	Long Valley	NFTS Trail: Open to Motorcycles only

* Road or Trail number from the original ENF TMEIS is listed, followed by a newer road or trail number in parenthesis. A list of the road and trail numbers that have been changed since the ENF TMEIS is located in appendix A.

Routes with Specific Forest Plan Amendments

The following routes or route segments would require a Forest Plan amendment to be designated open for public wheeled motor vehicle use: 09N01, 09N08, 09N82 (16E26), 09N83 (19E01), 09N95, 10N01, 0.5 miles of 10N13 (Schneider Camp Road), 6.8 miles of 10N13 (17E73; Strawberry Cr. 4WD trail), 10N14, 10N21 (16E27; Long Canyon 4WD trail), 10N98, 11N23F (16E33), 11N26F (16E21; Barrett 4WD trail), 11NY32, 14N39, 17E16, 17E19, 17E24, 17E28. These routes are proposed for a Forest Plan amendment because they provide a unique recreation opportunity (such as a high elevation trail experience), enhance the recreation experience by connecting routes or areas, provide access to areas of interest, or allow access for camping. They would be designated for public motorized use with an exception to Standard and Guideline #100 of the ENF LRMP SNFPA to allow for public motorized use on sections affecting the hydrologic connectivity of meadows until corrective actions are analyzed and implemented

Alternative 2 – No Action

Under the No Action alternative, current management would continue to guide allowed uses of the individual routes. The same portions of the 42 routes that were closed under

the court order would remain closed to public motorized use. No designation of route segments currently closed would be implemented. There would be no amendments to the LRMP.

Alternative 3 – Preferred Alternative

Alternative 3 was developed in response to public comments received during the scoping period for this SEIS. There would not be any amendments to the ENF LRMP under this alternative.

Alternative 3 is similar to Alternative 1 with the following exceptions:

The LRMP would not be amended for the routes as proposed in Alternative 1: 09N01, 09N08, 09N82 (16E26), 09N83 (19E01), 09N95, 10N01, 0.5 miles of 10N13 (Schneider Camp Road), 6.8 miles of 10N13 (17E73; Strawberry Cr. 4WD trail), 10N14, 10N21 (16E27; Long Canyon 4WD trail), 10N98, 11N23F (16E33), 11N26F (16E21; Barrett 4WD trail), 11NY32, 14N39, 17E16, 17E19, 17E24, 17E28. Instead, these routes would continue to be part of the NFTS but would not be designated for public motorized use and identified on a Motor Vehicle Use Map (MVUM) until the routes are in compliance with Standard and Guideline 100 as it pertains to meadows. This alternative identifies these routes for future corrective actions, but does not analyze the actions necessary to bring each into compliance with Standard and Guideline 100. Corrective actions would be proposed and analyzed as part of future NEPA analyses, as funding to implement corrective actions becomes available. After corrective actions have been analyzed and implemented, the route would appear as a designated public motorized road or trail on the next revision of the MVUM.

Routes with Specific Forest Plan Amendments

There are no routes requiring LRMP amendments under this alternative.

Alternative 4

Alternative 4 was developed in response to public comments received during the scoping period for this SEIS. There would not be any amendments to the ENF LRMP under this alternative.

Alternative 4 is similar to Alternative 1 except for the following:

The following routes or portions of routes would be designated for public motorized use: 09N54 (open up to intersection with 09N60, closed to public motorized use past that point), 10N06, 10N26, 11N09A, 11N22, 11N70, 13N24, 09N15, 10NY05 (open from 10NY04 to a point just before drainage near 16E27, and closed beyond that point) and 14N05 (open up to McKinsty Trailhead, closed to public motorized use beyond the trailhead), and 14N27.

The following routes or portions of routes that are currently closed by court order would continue to be a part of the NFTS but would not be designated for public motorized use and identified on a MVUM until the routes are in compliance with Standard and Guideline 100 as it pertains to meadows: 09N01, 09N08, 10N13 (open to a spot suitable for camping just north of Schneider Camp meadow, closed to public motorized use beyond that point), 10N14, 10N21 (16E27) (open except for the section between 10NY04E and the section currently open on the west end), 11N26F (16E21), 11NY32. This alternative identifies these routes for future corrective actions, but does not analyze the actions necessary to bring each route into compliance with Standard and Guideline 100. Corrective actions would be proposed and analyzed as part of future NEPA analyses, as funding to implement corrective actions becomes available. After corrective actions have been analyzed and implemented, the route would appear as a designated public motorized road or trail on the next revision of the MVUM.

The following routes or portions of routes that are currently closed by court order would continue to be a part of the NFTS but would not be designated for public motorized use and identified on a MVUM until mitigation for resource concerns not directly related to Standard and Guideline 100 and meadows is implemented: 08N23B, 12NY15, 08N35, 10N32, and 10NY06. The reasons mitigation is indicated for these routes are documented in the project record, but the mitigation is not analyzed in this document. Mitigation would be proposed and analyzed as part of future NEPA analyses, as funding to implement corrective actions becomes available. After the mitigation has been analyzed and implemented, the route would appear as a designated public motorized road or trail on the next revision of the MVUM. Portions of these routes that are currently open under the court order would remain open for public motorized use.

The following portions of routes that are not currently closed by court order would continue to be a part of the NFTS but would not be designated for public motorized use and identified on a MVUM until mitigation for resource concerns not directly related to Standard and Guideline 100 and meadows is implemented: western 2.26 miles of 09N04 (17E79), and 10N03.

The portions of the following routes that are currently closed to public motorized use under court order would remain closed to public motor vehicle use: 09N54 past intersection with 09N60, 10NY04, 17E12, 14N58, 17E17, 17E21, 09N82 (southern portion 16E26), 09N83 (19E01), 09N95, 10N01 (10N01B), 10N13 (17E73), closed beyond Schneider Camp), 10N21 (portion between 10NY04E and the section currently open on the west end), 10N98, 11N23F (16E33), a portion of 12NY06, 14N05 past McKinstry Trailhead, 14N39, 17E16, 17E19, 17E24 (west and east portions), and 17E28.

A portion of 12NY06 that is not currently closed to public motorized use by court order would be closed in this alternative.

Routes with Specific Forest Plan Amendments

There are no routes requiring LRMP amendments under this alternative.

Alternatives Considered but Eliminated from Detailed Study _____

Federal agencies are required to rigorously explore and objectively evaluate all reasonable alternatives and to briefly discuss the reasons for eliminating any alternatives that were not developed in detail (40 CFR 1502.14). Public comments received in response to the Proposed Action provided suggestions for alternative methods for achieving the purpose and need. Some of these alternatives may have been outside the scope of the need for the proposal, duplicative of the alternatives considered in detail, or determined to be components that would cause unnecessary environmental harm. Therefore, a number of alternatives were considered, but dismissed from detailed consideration for reasons summarized below:

An alternative which included closure and rehabilitation of some routes was considered but not carried forward. The purpose and need of this analysis was to reconsider whether to allow public motorized use on 42 specific routes. An alternative addressing closure and rehabilitation of those routes that are not designated for public motorized use is beyond the scope of this analysis since a decision is not being made regarding other uses of the routes including administrative use or permitted use such as access to private property.

An alternative was considered that would analyze the on the ground corrective actions for each route that did not meet Standard and Guideline #100. This alternative was not carried forward because substantially more time and resources would be required to analyze in detail the appropriate corrective actions that could be taken for each route, including additional field analysis for potential reroutes or ground disturbing activities. The on the ground corrective actions will be analyzed on a route by route basis as required by the alternative that is selected in the Record of Decision. This will enable the 24 routes that were found to not affect meadows to be reopened more expediently.

Comparison of Alternatives _____

The table on the following pages provides a brief summary of mileages of route designations under each of the alternatives in comparative format.

Table 2.2 Comparison of Alternatives

Route					Alternative 1 - Proposed Action			
Number	Name	Designation	Total miles	Miles currently open for public motorized use	Additional miles designated for public motorized use	Additional miles designated for public motorized use with LRMP amendment	Additional miles suitable for public motorized use to be designated and added to MVUM after corrective actions or mitigation	Miles closed to public motorized use
Routes found by USFS to not cross or border meadows on National Forest land								
08N23B	Prothro Headwater	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	3.37	1.71	1.66	0	0	0
08N35	Upper West Panther	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	1.76	1.65	0.11	0	0	0
9N04 west end (17E79)	Pardoe 4WD	NFTS 4WD Trail: Open to High Clearance Vehicles.	2.26	2.26	0	0	0	0
09N54	Leoni Meadows	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles	1.89	1.33	0.03	0	0	0.53
10N06	Pebble Ridge	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	2.21	2.15	0.06	0	0	0
10N26	Sciots Creek	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	3.08	0	3.08	0	0	0
10N32	South Beanville Creek	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	5.19	5.17	0.02	0	0	0
10NY04	Middle Long Canyon	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	2.66	1.35	1.31	0	0	0
11N09A	Bryan Creek	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	1.95	0.91	1.04	0	0	0
11N22	Strawberry Creek	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	2.02	0.98	1.04	0	0	0
11N70	McManus	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	5.32	5.23	0.09	0	0	0
12NY15	West Robbs Peak	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	3.78	0.87	2.91	0	0	0
13N24	Dry Lakes	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	3.93	3.91	0.02	0	0	0
17E12	Lovers Leap Motorcycle Trail	NFTS Trail: Open to Motorcycles only.	1.55	0	1.55	0	0	0
Routes found by USFS to meet Standard & Guideline #100								
09N15	Leek Springs Valley	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	0.2	0	0.2	0	0	0
10N03	Devil's Gate Summer Home	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	0.47	0.47	0	0	0	0
10NY05	Rocky Road	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	1.26	0	1.26	0	0	0
10NY06	Upper Long Canyon	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	1.64	0	1.64	0	0	0
12NY06	Crystal Shortcut	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	1.32	1.1	0.22	0	0	0
14N05	McKinstry Lake	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	5.02	0.18	0	4.84	0	0
14N27	Bunker Meadow	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	8.74	5.32	3.42	0	0	0
14N58	Jerrett	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	1.66	0	1.66	0	0	0
17E17	Bucks Pasture Motorcycle Trail	NFTS Trail: Open to Motorcycles only.	3.77	0	3.77	0	0	0
17E21	Horse Canyon Trail	NFTS Trail: Open to Motorcycles only.	5.01	0	5.01	0	0	0

	Alternative 2 - No Action				Alternative 3				Alternative 4				
Number	Additional miles designated for public motorized use	Additional miles designated for public motorized use with LRMP amendment	Additional miles suitable for public motorized use to be designated and added to MVUM after corrective actions or mitigation	Miles closed to public motorized use	Additional miles designated for public motorized use	Additional miles designated for public motorized use with LRMP amendment	Additional miles suitable for public motorized use to be designated and added to MVUM after corrective actions or mitigation	Miles closed to public motorized use	Miles currently open that remain open under Alternative 4	Additional miles designated for public motorized use	Additional miles suitable for public motorized use to be designated and added to MVUM after corrective actions or mitigation	Additional miles designated for public motorized use to be added to MVUM after mitigation	Miles closed to public motorized use
Routes found by USFS to not cross or border meadows on National Forest land													
08N23B	0	0	0	1.66	1.66	0	0	0	1.71	0	0	1.66	0
08N35	0	0	0	0.11	0.11	0	0	0	1.65	0	0	0.11	0
9N04 west end (17E79)	0	0	0	0	0	0	0	0	0	0	0	2.26	0
09N54	0	0	0	0.56	0.03	0	0	0.53	1.33	0.03	0	0	0.53
10N06	0	0	0	0.06	0.06	0	0	0	2.15	0.06	0	0	0
10N26	0	0	0	3.08	3.08	0	0	0	0	3.08	0	0	0
10N32	0	0	0	0.02	0.02	0	0	0	5.17	0	0	0.02	0
10NY04	0	0	0	1.31	1.31	0	0	0	1.35	0	0	0	1.31
11N09A	0	0	0	1.04	1.04	0	0	0	0.91	1.04	0	0	0
11N22	0	0	0	1.04	1.04	0	0	0	0.98	1.04	0	0	0
11N70	0	0	0	0.09	0.09	0	0	0	5.23	0.09	0	0	0
12NY15	0	0	0	2.91	2.91	0	0	0	0.87	0	0	2.91	0
13N24	0	0	0	0.02	0.02	0	0	0	3.91	0.02	0	0	0
17E12	0	0	0	1.55	1.55	0	0	0	0	0	0	0	1.55
Routes found by USFS to meet Standard & Guideline #100													
09N15	0	0	0	0.2	0.2	0	0	0	0	0.2	0	0	0
10N03	0	0	0	0	0	0	0	0	0	0	0	0.47	0
10NY05	0	0	0	1.26	1.26	0	0	0	0	0.93	0	0	0.33
10NY06	0	0	0	1.64	1.64	0	0	0	0	0	0	1.64	0
12NY06	0	0	0	0.22	0.22	0	0	0	0.82	0	0	0	0.5
14N05	0	0	0	4.84	0	0	4.84	0	0.18	2.93	0	0	1.91
14N27	0	0	0	3.42	3.42	0	0	0	5.32	3.42	0	0	0
14N58	0	0	0	1.66	1.66	0	0	0	0	0	0	0	1.66
17E17	0	0	0	3.77	3.77	0	0	0	0	0	0	0	3.77
17E21	0	0	0	5.01	5.01	0	0	0	0	0	0	0	5.01

Table 2.2 Comparison of Alternatives (continued)

Route					Alternative 1 - Proposed Action			
Number	Name	Designation	Total miles	Miles currently open for public motorized use	Additional miles designated for public motorized use	Additional miles designated for public motorized use with LRMP amendment	Additional miles designated for public motorized use to be added to MVUM after mitigation	Miles closed to public motorized use
Routes found by USFS to not meet Standard & Guideline #100								
09N01	Blue Lakes	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	2.44	1.77	0	0.67	0	0
09N08	Stockton Camp	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	0.3	0.15	0	0.15	0	0
09N82 (16E26)	Squaw Ridge 4WD Trail	NFTS 4WD Trail: Open to High Clearance Vehicles	7.47	0.5	0	6.97	0	0
09N83 (19E01)	Clover Valley/Deer Valley Trail	NFTS 4WD Trail: Open to High Clearance Vehicles	4.83	1.65	0	3.18	0	0
09N95	Cosumnes Head (paved)	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	0.45	0	0	0.45	0	0
10N01 (10N01B)	Spur off Woods Lake	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	0.83	0	0	0.83	0	0
10N13	Schneider Camp Road	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	1.12	0.63	0	0.49	0	0
10N13 (17E73)	Strawberry 4WD trail	NFTS 4WD Trail: Open to High Clearance Vehicles	6.73	0	0	6.73	0	0
10N14	Mule Canyon	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	2.47	0	0	2.47	0	0
10N21 (16E27)	Long Canyon 4WD Trail	NFTS 4WD Trail: Open to High Clearance Vehicles	3.99	2.41	0	1.58	0	0
10N98	Jim Quinn Spur	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	1.94	0	0	1.94	0	0
11N23F (16E33)	North Shanty Spur	NFTS 4WD Trail: Open to High Clearance Vehicles	3.21	2.94	0	0.27	0	0
11N26F (16E21)	Barrett Lake 4WD Trail	NFTS 4WD Trail: Open to High Clearance Vehicles	5.35	0	0	5.35	0	0
11NY32	47 Milestone	NFTS Road: Open to All Highway Legal Vehicles	0.44	0	0	0.44	0	0
14N39	Richardson Lake 4WD	NFTS Road: Open to All Highway and Non-Highway Legal Vehicles.	2.65	0	0	2.65	0	0
17E16	Little Round Top	NFTS Trail: Open to Motorcycles only.	2.36	0	0	2.36	0	0
17E19	Allens Camp Motorcycle Trail	NFTS Trail: Open to Motorcycles only.	1.97	0	0	1.97	0	0
17E24 (west & east ends)	Carson Emigrant National Recreation Trail	NFTS 4WD Trail: Open to High Clearance Vehicles	8.22	1.46	0	6.76	0	0
17E28	Long Valley	NFTS Trail: Open to Motorcycles only.	3.81	0	0	3.81	0	0

Alternative 2 - No Action					Alternative 3				Alternative 4				
Number	Additional miles designated for public motorized use	Additional miles designated for public motorized use with LRMP amendment	Additional miles designated for public motorized use to be added to MVUM after mitigation	Miles closed to public motorized use	Additional miles designated for public motorized use	Additional miles designated for public motorized use with LRMP amendment	Additional miles designated for public motorized use to be added to MVUM after mitigation	Miles closed to public motorized use	Miles currently open that remain open under Alternative 4	Additional miles designated for public motorized use	Additional miles designated for public motorized use with LRMP amendment	Additional miles designated for public motorized use to be added to MVUM after mitigation	Miles closed to public motorized use
Routes found by USFS to not meet Standard & Guideline #100													
09N01	0	0	0	0.67	0	0	0.67	0	1.77	0	0	0.67	0
09N08	0	0	0	0.15	0	0	0.15	0	0.15	0	0	0.15	0
09N82 (16E26)	0	0	0	6.97	0	0	6.97	0	0.5	0	0	0	6.97
09N83 (19E01)	0	0	0	3.18	0	0	3.18	0	1.65	0	0	0	3.18
09N95	0	0	0	0.45	0	0	0.45	0	0	0	0	0	0.45
10N01 (10N01B)	0	0	0	0.83	0	0	0.83	0	0	0	0	0	0.83
10N13	0	0	0	0.49	0	0	0.49	0	0.63	0	0	0.17	0.31
10N13 (17E73)	0	0	0	6.73	0	0	6.73	0	0	0	0	0	6.73
10N14	0	0	0	2.47	0	0	2.47	0	0	0	0	2.47	0
10N21 (16E27)	0	0	0	1.58	0	0	1.58	0	2.41	0	0	0.24	1.34
10N98	0	0	0	1.94	0	0	1.94	0	0	0	0	0	1.94
11N23F (16E33)	0	0	0	0.27	0	0	0.27	0	2.94	0	0	0	0.27
11N26F (16E21)	0	0	0	5.35	0	0	5.35	0	0	0	0	5.35	0
11NY32	0	0	0	0.44	0	0	0.44	0	0	0	0	0.44	0
14N39	0	0	0	2.65	0	0	2.65	0	0	0	0	0	2.65
17E16	0	0	0	2.36	0	0	2.36	0	0	0	0	0	2.36
17E19	0	0	0	1.97	0	0	1.97	0	0	0	0	0	1.97
17E24 (west & east ends)	0	0	0	6.76	0	0	6.76	0	1.46	0	0	0	6.76
17E28	0	0	0	3.81	0	0	3.81	0	0	0	0	0	3.81

Comparison of Alternatives: Effects by Resource Area

Hydrology

The Hydrology Analysis indicates that there are 24 routes where there is no difference between the alternatives with regard to Standard & Guideline (S&G) #100. This is because 14 routes do not cross or border meadows and 10 routes cross or border meadows that meet S&G #100.

There are 18 routes – the routes that have caused at least one meadow to not meet S&G #100 - where there are differences between the alternatives with regard to S&G #100. Alternative 1 (Proposed Action) would create a *Forest Plan Amendment* that would exempt those 18 routes from S&G #100. Alternatives 2, 3, and 4 would result in zero, 18, and seven of those 18 routes meeting S&G #100, respectively. This also means that Alternatives 2, 3, 4 would result in 18, 0, and 13 routes not meeting S&G #100, respectively.

It would likely take a number of years for Alternatives 3 or 4 to result in all routes meeting S&G #100.

The above results are summarized in Table 3.9 and Figure 3.9.

Recreation

The Recreation Analysis shows that the alternatives differ substantially as to effects to recreation users. Alternative 1, the Proposed Action, results in the highest number of miles of roads and trails rated high in recreation value open to public motorized use initially (95.8 miles). Alternative 3 results in the same number of miles of high value recreation routes designated for public motorized use, however only 53.4 of those miles would be open initially, with an additional 42.4 miles continuing to be part of the NFTS but not designated for public motorized use and identified on a Motor Vehicle Use Map (MVUM) until corrective actions are analyzed and implemented. Alternative 4 would result in 3.7 miles of high recreation value routes open to public motorized use, with an additional 13.4 miles continuing to be part of the NFTS but not designated for public motorized use and identified on a Motor Vehicle Use Map (MVUM) until corrective actions or mitigation are analyzed and implemented. In Alternative 2, No Action, only the 29.97 miles of high value recreation routes that were not closed by court order would

remain open, with 65.85 miles of high value recreation routes closed to public motorized use.

The effects on 4WD and motorcycle riding opportunities, particularly high country routes over 6,000 feet in elevation, all rated high in recreation value, also vary substantially between alternatives. In Alternative 1, the proposed action, 42.06 miles of 4WD routes, all rated high in recreation value, would be open. Approximately 18.47 miles of high country motorcycle routes would be open, all rated medium to high in recreation value. In Alternative 3, the same number of high country 4WD trails would be designated for public motorized use, however only 11.22 miles would be open initially, with an additional 30.84 miles added to the MVUM once corrective actions are analyzed and implemented. All of the high country motorcycle trails, approximately 18.47 miles, would be designated open but not added to the MVUM until after corrective actions are analyzed and implemented. In Alternative 4, 8.96 miles of high country 4WD trails would remain open, and an additional 7.85 miles of high country 4WD trails would be designated open but not added to the MVUM until after corrective actions and mitigation are analyzed and implemented. Approximately 53 percent of the total 4WD trail opportunities on the Eldorado National Forest over 6,000 feet in elevation would be closed, and all of the high country motorcycle trails, approximately 18.47 miles, representing 90 percent of the total motorcycle trail opportunities on the Eldorado National Forest over 6,000 feet in elevation would be closed. In Alternative 2, 11.22 miles of high country 4WD trails would remain open, and 30.84 miles of high country 4WD trails would be closed. This equates to the closure of 65 percent of the total 4WD trail opportunities on the Eldorado National Forest over 6,000 feet in elevation. All of the high country motorcycle trails, approximately 18.47 miles, rated medium to high recreation value, would be closed to public motorized use. This represents 90 percent of the total motorcycle trail opportunities on the Eldorado National Forest over 6,000 feet in elevation.

Chapter 3. Affected Environment and Environmental Consequences

This Chapter is limited to updating the affected environment and effects analysis for relevant to the 42 specific routes, meadows, and Standard and Guideline #100 in the Eldorado National Forest. For affected environment and environmental consequences for the remaining resources, including cumulative effects, the reader is advised to review the Eldorado National Forest Public Wheeled Motorized Travel Management EIS and ROD, March 2008, available on the Eldorado National Forest website <http://www.fs.usda.gov/eldorado/> or by request from 100 Forni Road, Placerville, CA 95667.

Hydrology

Affected Environment

Background

The 42 routes are scattered throughout 35 watersheds (HUC 7 scale) in the Eldorado National Forest, and 29 of the routes cross or border meadows (Table 3.4).

Table 3.4 Summary of the 42 routes in the Eldorado National Forest (ENF).¹

District	Route number	Number of meadows ²	Watersheds (HUC 7 scale) ³
Amador	08N23B	0	Upper Middle Fork Cosumnes River (9,258 acres).
	08N35	0	West Panther Creek (9,258 acres).
	09N08	1	Silver Fork American River – Silver Lake (9,567 acres).
	09N54	0	Clear Creek – Steely Fork Cosumnes River (2,890 acres); Dogtown Creek (6,849 acres).
	09N82	3	Silver Fork American River – Silver Lake (9,567 acres); Lower Summit City Creek (8,754 acres); Ladeux Meadow (4,212 acres); Upper Bear River (7,888 acres); Upper Cole Creek (10,109 acres).
	09N83 (19E01)	2	Blue Lakes (5,228 acres); Lower Deer Creek (2,955 acres).
	09N95	2	Upper Middle Fork Cosumnes River (9,258).
	10N01	1	Caples Lake (8,718 acres).
	10N03	1	Caples Lake (8,718 acres).
	17E19	7	Silver Fork American River – Silver Lake (9,567 acres); Upper Bear River (7,888 acres).
	17E17	1	Caples Creek (11,581 acres), Strawberry Creek (7,461 acres).
	17E21	1	Upper Silver Fork American River, Silver Fork American River – Silver Lake (9,567 acres); Lower Summit City Creek (8,754 acres).
	17E24	8	Tragedy Creek, Upper Bear River, Ladeaux Meadow (4,212 acres), Silver Fork American River – Silver Lake (9,567 acres); Caples Lake (8,718 acres).
	17E28	6	Upper Bear River (7,888 acres).

¹ Does not include route segments and meadows on private land.

² Includes meadows as defined in Table 3.6 - does not include other aquatic features such as streams, narrow strips of alder next to streams, and alder-dominated wetlands.

³ HUC = Hydrologic Unit Code.

Table 3.4 (continued). Summary of the 42 routes in the Eldorado National Forest (ENF).¹

District	Route number	Number of meadows ²	Watersheds (HUC 7 scale)
Pacific	11N26F (16E21)	4	Upper Jones Fork – Silver Creek (6,150), Barrett Lake.
	11N70	0	Lower Silver Creek (6,646 acres); Soldier Creek (3,523 acres); South Fork American River – Fresh Pond (7,025 acres).
	12NY06	3	Union Valley Reservoir (11,357 acres).
	12NY15	0	Little Silver Creek (8,851 acres); Union Valley Reservoir (11,357 acres).
	13N24	0	Rubicon River – Stony Creek (12,542 acres).
	14N27	3	Rubicon River – Little McKinstry meadow (5,761 acres); Upper Gerle Creek (7,940 acres); Rubicon River – Stony Creek (12,542 acres).
	14N05	1	Upper Gerle Creek (7,940 acres) , Loon Lake 5,126 acres.
	14N39	8	Miller Creek (3,163 acres).
	14N58	1	Upper Gerle Creek (7,940 acres).
Placerville	09N15	2	Upper North Fork Cosumnes River (7,514 acres).
	10N06	0	Middle Camp Creek (10,439 acres).
	10N14	1	Caples Creek (11,581 acres).
	10N26	0	Station Creek (2,285 acres), South Fork American River – Forni Creek (5,593 acres); Cody Creek (2,442 acres).
	10N32	0	South Fork American River – Fry Creek (7,842 acres); Beanville Creek (2,356 acres).
	10NY04	0	Long Canyon (7,120 acres)
	10NY05	2	
	10NY06	1	
	10N21	5	
	10N13	2	Caples Creek (11,581 acres)
	17E73	8	Strawberry Creek (7,461 acres).
	10N98	2	Headwaters Alder Creek (10,061 acres).
	11N09A	0	Sayles Canyon (4,265 acres); Headwaters South Fork American River (6,691 acres)
	11N22	0	Strawberry Creek (7,461 acres)
	11N23F	1	Bark Shanty Canyon (2,286 acres)
	11NY32	1	Headwaters South Fork American River (6,691 acres)
	17E12	0	South Fork American River – Forni Creek; Strawberry Creek

¹ Does not include route segments and meadows on private land.² Includes meadows as defined in Table 3.6 - does not include other aquatic features such as streams, narrow strips of alder next to streams, and alder-dominated wetlands.

Analysis Framework

The scope of analysis is defined by the following Court Order: *Case No. 2:09-CV-02523-LKK-JFM (United States District Court, Eastern District of California, filed 7/31/12)*. This Court Order requires the Forest Service to analyze 42 specific routes for consistency with the Riparian Conservation Objective (RCO) #2, Standard and Guideline #100. The Court Order left intact all other portions of the Forest Service's travel management decision, including the parts of the routes that do not intersect meadows. As a consequence, this analysis focuses on S&G #100, which relates to impacts to meadows. The 42 routes are listed in Table 3.4, and S&G #100 is provided in full below. Additional hydrologic topics were analyzed in the 2008 TM EIS and ROD. Please refer to the 2008 TM EIS for an analysis of water quality, cumulative watershed effects, streams, and wetlands.

Standard & Guideline #100:

“Maintain and restore the hydrologic connectivity of streams, meadows, wetlands, and other special aquatic features by identifying roads and trails that intercept, divert, or disrupt natural surface and subsurface water flow paths. Implement corrective actions where necessary to restore connectivity.”

Data and Analysis Methods

Meadow Survey Results

The 42 routes were surveyed in the Eldorado National Forest (ENF) in 2011 and 2012 in order to: 1) locate the meadows that border or cross the 42 routes, and 2) determine whether those meadows and associated routes are in compliance with Standard and Guideline #100 of the Sierra Nevada Forest Plan Amendment Record of Decision (SNFPAROD 2004) as it pertains to meadows. Standard and Guideline #100 states: *“Maintain and restore the hydrologic connectivity of streams, meadows, wetlands, and other special aquatic features by identifying roads and trails that intercept, divert, or disrupt natural surface and subsurface water flow paths. Implement corrective actions where necessary to restore connectivity.”*

A summary of the survey results is described below and in Table 3.5 and Figure 3.1.

- 81 of the surveyed features in the ENF were classified as meadows and 34 of the features were not classified as meadows (Figures 3.2 and 3.3). The features that were not classified as meadows included alder-dominated wetlands, narrow strips of alder adjacent to streams, forested areas with or without shrubs, and areas of shrubs without trees.
- 14 routes do not cross or border meadows. As a result, S&G #100 does not apply to these routes with regard to meadows.
- 10 routes meet S&G #100. This is because these routes cross or border meadows that meet S&G #100.
- 18 routes do not meet S&G #100. This is because these routes have affected the hydrology of a total of 38 meadows such that S&G #100 was not being met.

A description of the field surveys, which includes the definitions and methodology used, is in Table 3.6. A summary of the field survey results for individual routes is in Table 3.7; a summary of the meadows that do not meet S&G #100 is in Table 3.8; two examples of field surveys are in Figures 3.4 through 3.8. All of the field survey forms are included in the Project Record.

¹ Most of the field surveys were complete in 2011. Field surveys were completed by Steve Markman, Hydrologist, and Ryan Lockwood, Hydrologic Technician.

Table 3.5 Summary of the field surveys of the 42 routes in 2011 and 2012 in the Eldorado National Forest.

	List of routes ¹	Number of routes
Routes that do <u>not</u> cross or border meadows on National Forest land	08N23B, 08N35, 09N04 (17E79), 09N54, 10N06, 10N26, 10N32, 10NY04, 11N09A, 11N22, 11N70, 12NY15, 13N24, 17E12.	14
Routes that cross or border meadows that meet Standard & Guideline #100.	09N15, 10N03, 10NY05, 10NY06, 12NY06, 14N05, 14N27, 14N58, 17E17, 17E21.	10
Routes that cross or border at least one meadow that does <u>not</u> meet Standard & Guideline #100.	09N01, 09N08, 09N82 (16E26), 09N83 (19E01), 09N95, 10N01, 10N13 (17E73), 10N14, 10N21 (16E27), 10N98, 11N23F (16E33), 11N26F (16E21), 11NY32, 14N39, 17E16, 17E19, 17E24, 17E28.	18

¹ Alternate route numbers are shown in parenthesis.

Figure 3.1 Summary of the field surveys of meadows in 2011 and 2012 in the Eldorado National Forest. (S&G #100 = Standard & Guideline #100).

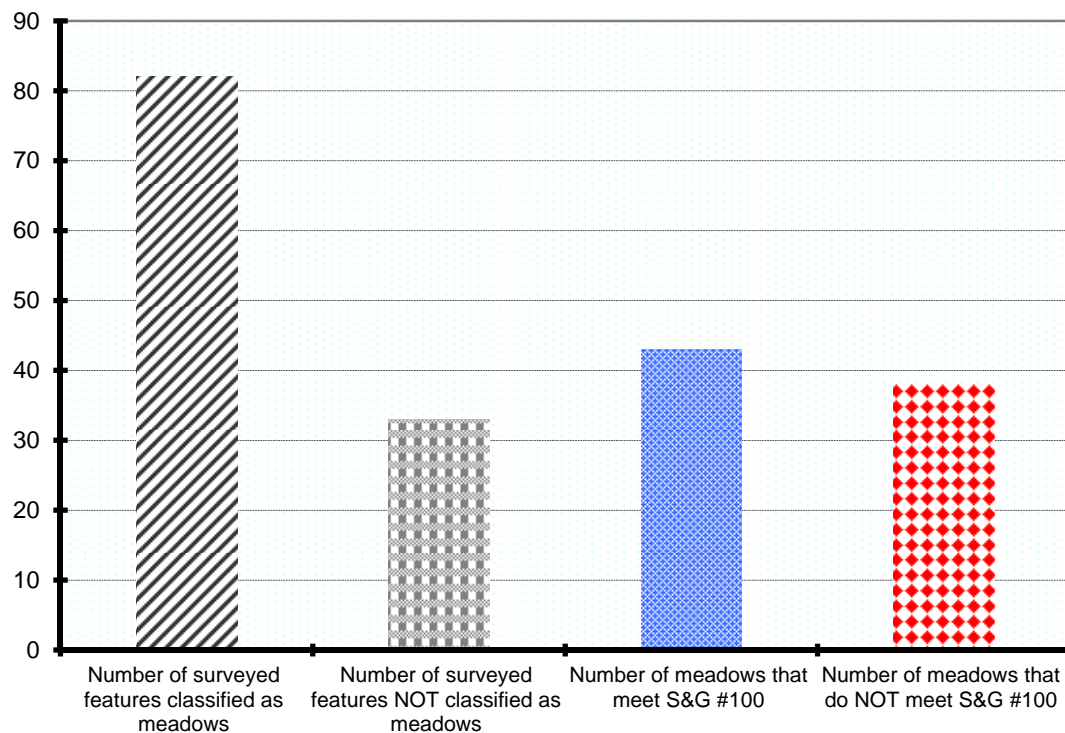


Table 3.6 Description of the field surveys of meadows in the Eldorado National Forest (ENF) in 2011 and 2012.¹

Purpose of field surveys	To determine if specific road or trail segments are causing adjacent meadows to not meet Standard and Guideline #100 of the Sierra Nevada Forest Plan Amendment of 2004.
Standard and Guideline #100	<i>“Maintain and restore the hydrologic connectivity of streams, meadows, wetlands, and other special aquatic features by identifying roads and trails that intercept, divert, or disrupt natural surface and subsurface water flow paths. Implement corrective actions where necessary to restore connectivity.”</i>
Definition of a meadow²	<i>“A meadow is defined as a grassy opening, 0.1 acres or larger, dominated by perennial sedges, rushes, and grasses (wet meadow) or perennial grasses and forbs (dry meadow).”</i>
Characteristics of a meadow³	<ul style="list-style-type: none"> ✓ <i>“A meadow is an ecosystem type composed of one or more plant communities dominated by herbaceous species.</i> ✓ <i>It supports plants that use surface water and/or shallow groundwater (generally at depths of less than one meter).</i> ✓ <i>Woody vegetation, like trees or shrubs, may occur and be dense but are not dominant.”</i>
Definition of hydrologic connectivity	The hydrologic connectivity of a meadow exists when the surface and subsurface flow of water through the meadow has not been visibly altered by the road or trail segment.
Methodology⁴	<p><u>Description.</u> A field survey form for meadows was developed specifically to evaluate compliance with Standard & Guideline #100. The questions on page 2 of the survey form are specific to <i>visible or noticeable evidence of alteration of the surface and subsurface flow of water through the meadow</i>. The questions are qualitative, require hydrologic knowledge and field experience to answer, and are based on features that are visible at the ground surface, but reflect surface and subsurface water flow characteristics as described in the criteria below.⁴</p> <p><u>Assumptions</u></p> <ul style="list-style-type: none"> • The mere presence of a road or trail through or adjacent to a meadow (on-the-ground) does <u>not</u> determine if Standard and Guideline #100 is being met. This is because it is possible for a road or trail to occur within or adjacent to a meadow without a visible alteration of surface or subsurface flow of water into or through the meadow. • A disruption of surface and/or subsurface flow in the meadow by a road or trail would result in evidence that can be seen at the surface, such as changes in vegetation, presence of deposited sediment, gullies, incised stream channels, etc. <p><u>Criteria for rating Standard & Guideline #100</u> Roads and trails were rated as <u>not</u> meeting Standard & Guideline #100 if field evidence was visible that shows one or more of the following:</p> <ul style="list-style-type: none"> • The road or trail intercepts and diverts surface and/or subsurface water from the meadow and routes the water away from the meadow such that the meadow has decreased in size and/or wetness. • Runoff from the road or trail has eroded sediment into the meadow such that the size and/or wetness of the meadow has been reduced. • Runoff from the road or trail has caused a stream channel to downcut such that the water table next to the stream has dropped and the size and/or the wetness of the meadow has decreased.

¹ Most of the field surveys were completed in 2011. Field surveys were completed by Steve Markman, Hydrologist, and Ryan Lockwood, Hydrologic Technician.

² As quoted from the *Land Resource Management Plan for the Eldorado National Forest* of 1989.

³ As quoted from the *Meadow Hydrogeomorphic Types for the Sierra Nevada and Southern Cascade Ranges in California* (USDA 2011).

⁴ The methodology was created by Steve Markman, Hydrologist, Eldorado National Forest. The detailed inventory method described in *Groundwater-Dependent Ecosystems (General Technical Report WO-86a, March 2012)* does not include a survey form that is specific to evaluating Standard and Guideline #100 of the 2004 Sierra Nevada Forest Plan Amendment.

Table 3.7 Summary of the field survey results in 2011 and 2012 for the 42 routes in the Eldorado National Forest.¹

Route number	Surveyed by	Number of surveyed features crossed or bordered by route	Number of surveyed features that were <u>not</u> classified as meadows	Do all meadows meet S&G #100?	Number of meadows that do <u>not</u> meet S&G #100	Number of meadows that meet S&G #100	Alternate route number and name
Routes that do <u>not</u> cross or border meadows							
08N23B	SM	2	2	N/A	0	0	Prothro Headwater
08N35	SM	0	0	N/A	0	0	Upper West Panther
09N04	RL	0	0	N/A	0	0	17E79; Pardoe 4WD
09N54	RL	0	0	N/A	0	0	Leoni Meadows
10N06	RL	1	1	N/A	0	0	Pebble Ridge
10NY04	RL	1	1	N/A	0	0	Middle Long Canyon
10N26	RL	3	3	N/A	0	0	Sciots Creek
10N32	RL	0	0	N/A	0	0	South Beanville Creek
11N09A	SM	1	1	N/A	0	0	Bryan Creek
11N22	RL	1	1	N/A	0	0	Strawberry Creek
11N70	SM	0	0	N/A	0	0	McManus
12NY15	RL	2	2	N/A	0	0	West Robbs Creek
13N24	RL	1	1	N/A	0	0	Dry Lakes
17E12	SM	1	1	N/A	0	0	Lovers Leap motorcycle trail
Routes that cross or border meadows that meet Standard & Guideline #100							
09N15	RL	1	0	Yes	0	1	Leeks Springs Valley
10N03	SM	1	0	Yes	0	1	Devil's Gate Summer Home
10NY05	RL	2	0	Yes	0	2	Rocky road
10NY06	SM	2	1	Yes	0	1	Upper Long Canyon
12NY06	SM	3	0	Yes	0	3	Crystal Shortcut
14N05	SM	3	2	Yes	0	1	McKinstry
14N27	RL	6	3	Yes	0	3	Bunker Meadow
14N58	SM	2	1	Yes	0	1	Jerret
17E17	RL	3	2	Yes	0	1	Bucks Pasture motorcycle trail
17E21	RL	1	0	Yes	0	1	Horse Canyon trail

¹ RL = Ryan Lockwood, Hydrologic Technician. SM = Steve Markman, Hydrologist. S&G = Standard and Guideline. N/A = not applicable.

Table 3.7 (continued) Summary of the field survey results in 2011 and 2012 for 42 routes in the Eldorado National Forest.¹

Route number	Sur-veyed by	Number of surveyed features crossed or bordered by route	Number of surveyed features that were <u>not</u> classified as meadows	Do all meadows meet S&G #100?	Number of meadows that do <u>not</u> meet S&G #100	Number of meadows that meet S&G #100	Alternative route number and name
Routes that cross or border at least one meadow that does <u>not</u> meet Standard & Guideline #100.							
09N01	RL	1	0	No	1	0	Blue Lakes
09N08	SM	1	0	No	1	0	Stockton Camp
09N82	RL	5	2	No	2	1	16E26
09N83	RL	2	0	No	1	1	19E01; Clover Valley/Deer Valley Trail
09N95	SM	2	0	No	1	1	Cosumnes Head (paved)
10N01	RL	1	0	No	1	0	10N01B; spur off Woods Lake
10N13	SM	2	0	No	1	1	Schneider Camp Road;
17E73	SM	9	1	No	2	6	Strawberry 4WD trail
10N14	RL	1	0	No	1	0	Mule Canyon
10N21	SM	5	0	No	4	1	16E27; Long Canyon 4WD trail
10N98	RL	2	0	No	2	0	John Quinn Spur
11N23F	RL	1	0	No	1	0	16E33; North Shanty Spur
11N26F	RL	7	3	No	3	1	16E21; Barrett Lake 4WD trail
11NY32	RL	1	0	No	1	0	47 Milestone
14N39	SM	9	0	No	4	5	Richardson Lake 4WD
17E16	RL	5	3	No	2	0	Little Round Top
17E19	RL	7	0	No	5	2	Allens Camp Motorcycle trail
17E24	SM	8	0	No	4	4	Carson Emigrant trail
17E28	RL	9	3	No	1	5	Mud Lake trail

Total number	115	34	38	43
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¹ RL = Ryan Lockwood, Hydrologic Technician. SM = Steve Markman, Hydrologist. S&G = Standard and Guideline. N/A = not applicable.

Table 3.8 Summary of the 38 meadows that do not meet Standard & Guideline #100.

Reason number(s)	Description of the reason(s) that the meadow does not meet Standard & Guideline #100	Meadow reference number(s) ^{1,2,3}
1	The road or trail intercepts and diverts surface and/or subsurface water from the meadow and routes the water away from the meadow such that the meadow has decreased in size and/or wetness.	14N39-5.
2	Runoff from the road or trail has eroded sediment into the meadow such that the size and/or wetness of the meadow has been reduced.	9N82-1, 9N82-7, 9N95-1, 16E21-1, 11NY32-1, 14N39-1.
3	Runoff from the road or trail has caused a stream channel to downcut such that the water table next to the stream has dropped and the size and/or the wetness of the meadow has decreased.	9N82-3, 9N83-3, 11N23F-1, 14N39-7, 17E16-3, 17E16-4, 17E19-1, 17E19-5, 17E19-7, 17E28-7.
1 and 2	See above descriptions.	10N13-3, 10N13-6, 10N21-1, 10N21-2, 10N21-3, 10N21-4, 17E24-5.
1 and 3		16E21-6.
2 and 3		10N01-3, 10N14-1, 10N98-1, 10N98-2, 16E21-5, 17E19-2, 17E19-4, 17E24-3, 17E24-4.
1 and 2 and 3		9N01-all, 9N08-1, 10N13-11.

¹ Meadows are grouped according to the *primary* reason or reasons that they do not meet Standard & Guideline #100.

² The name of each meadow corresponds to the *meadow reference number* on the field surveys of 2011 and 2012.

³ Meadows are numbered sequentially along each route. For example, meadow 9N82-3 was the third meadow that was encountered along route 9N83.

Figure 3.2 Feature 12NY06-2, classified as a meadow, and rated as meeting Standard & Guideline #100.

Road 12NY06 is located approximately 200 feet from the meadow and has no visible effect on the surface and subsurface flow in the meadow or sediment delivery into the meadow. As a result, the meadow was rated as meeting Standard & Guideline #100. *July 2011.*



Figure 3.3 Feature 17E73-1 (10N13-1), classified as an alder-dominated wetland, and not rated in terms of Standard & Guideline #100. *September 2011.*



Figure 3.4. Meadow 17E73-3 (10N13-3), rated as not meeting Standard & Guideline #100.

A 0.2 mile long mile segment of trail 17E73 (Strawberry 4WD trail) crosses a nearly continuous series of wet meadows at approximately 2.5 miles from the beginning of the trail. The trail intercepts and re-routes surface and subsurface water throughout nearly the entire trail segment, as well as eroding sediment from the trail into meadows. *July 2011.*



Figure 3.5 Field survey form (page 1) for meadow 17E73-3 (10N13-3).**Field Survey for Meadows and Roads ¹**

Forest: Eldorado National Forest	District: Placerville	County:
Observers: Steve Markman, Hydrologist		Date: August 2, 2011 Time: 1430
Number and/or name of road or trail: 17E73 (10N13)	UTM: start 10 S 0753133 4293392 } wet area next to trail	
Meadow reference number: 17E73-3 (10N13-3)	end 10 S 0753152 4293727 }	
Characteristics of meadow		
Is the feature a meadow? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Describe what the feature actually is)		
Does the location of the meadow on-the-ground match the information in GIS? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If the answer is no, please describe the difference). Approx 1,000 ft. length of trail 17E73 is bordered by wet meadow on both sides of trail.		
Wetness of meadow (Select the best answer at the time of the survey) <input type="checkbox"/> Very wet (Standing or flowing surface water present in all or a large portion of feature). <input checked="" type="checkbox"/> Moderately wet (Surface water in part of feature and/or ground surface wet in most of feature). <input type="checkbox"/> Slightly wet (No surface water. Ground surface wet in part of feature). <input type="checkbox"/> Mostly dry (No surface water. Ground surface dry in most of feature). <input type="checkbox"/> Dry (No surface water. Ground surface dry in entire feature).		
Predominate riparian/wetland vegetation: Skunk cabbage, alder Abundance and location: Thick on both sides of road		Predominant non-riparian/wetland vegetation: Fir, lodgepole pine Abundance and location: Thick next to wet meadow areas
Proximity and characteristics of motorized routes in the meadow		
Does the road or trail enter the meadow? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Describe the location of the road or trail with respect to hydrologic features in the meadow.) Approximately 1,000 feet of trail goes through wet meadow areas.		
Does the road or trail parallel a portion of the meadow (within 100 ft. of the edge of the meadow)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Describe the distance that the road or trail parallels the meadow, and attach photos.)		
Is there evidence of motorized use off of the road or trail and into the meadow? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Describe the evidence, and attach photos.) Tire tracks just off of road, less than 20 feet from road.		
Are there stream channel crossings along the road in the meadow? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No two stream channel crossings <input type="checkbox"/> Pipes/culverts <input type="checkbox"/> Bridge <input checked="" type="checkbox"/> Raw crossings		
Are there cross drain structures along the road or trail in the meadow? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Pipes/culverts <input type="checkbox"/> Rolling dip		

¹ Use a separate form for each road or trail.

(July 25, 2011)

Figure 3.5 (continued). Field survey form (page 2) for meadow 17E73-3 (10N13-3).

Field Survey for Meadows and Roads (page 2)

17E73-3 8-2-11 Steve Marking

Condition of meadow (10N13-3)

Active erosion features (rills, gullies, headcuts) in meadow? ☒ Yes ☐ No
(If yes, describe the type, number, size, and location of the erosional features and whether they appear to be related to the road or trail.)
Runoff from the trail has created a number small channels (< 0.5 ft. deep) in the meadow areas on the downslope side of the trail.

Old, healed erosional features in meadow? ☐ Yes ☒ No
(If yes, describe the type, number, size, and location of the erosional features and whether they appear to be related to the road or trail.)

Hummocky surface in portions of the meadow? ☐ Yes ☒ No (If yes, describe location and aerial extent in meadow).

If the road(s) or trail(s) goes through the meadow, is the road/trail noticeably affecting the movement of water through the meadow?
☒ Yes ☐ No (If yes, describe the physical evidence).
Water is flowing down most of the 1,000 foot segment of the trail that goes through the meadow areas.

If the road(s) or trail(s) parallels a portion of the meadow, is the road/trail noticeably affecting the movement of water into or out of the meadow? ☐ Yes ☒ No (If yes, describe the evidence).

Is a road(s) or trail(s) contributing sediment into the meadow to the extent that it is noticeably affecting the size and/or function of the meadow? ☒ Yes ☐ No (If yes, describe the physical evidence).
Rills occur throughout the 1,000 ft. segment of the trail. Several plumes of sediment from trail into meadow, causing areas in meadow to be less wet.

Other land disturbances within the meadow? ☐ Yes ☒ No
(If yes to the above, describe types and extent).

Stream flowing through the meadow? ☒ Yes ☐ No 2 streams flow through the meadow areas.

Is stream eroding vertically (i.e. active downcutting)? ☐ Yes ☒ No
Is stream eroding laterally (i.e. actively widening)? ☐ Yes ☒ No } minor channel erosion
Does stream contain an active headcut(s)? ☐ Yes ☒ No } of 2 streams downstream
Does stream contain old (healed) headcut(s)? ☐ Yes ☒ No } of trail.

Aquatic species (incidental sightings only – no survey to a specific protocol)

List aquatic species present, numbers of individuals, and life stage
None observed.

Findings with respect to Standard and Guideline (S&G) #100 of the SNFPA

☐ Yes. S&G #100 is being met with regard to this road/trail and meadow.

☒ No. S&G #100 is NOT being met with regard to this road and meadow.

☐ I. Inconclusive. Field evidence not sufficient to determine if S&G #100 is being met.

S&G 100: Maintain and restore the hydrologic connectivity of streams, meadows, wetlands, and other special aquatic features by identifying roads and trails that intercept, divert, or disrupt natural surface and subsurface water flow paths. Implement corrective actions where necessary to restore connectivity.

Other Comments 1,000 ft. segment of trail 17E73 intercepts surface and groundwater from adjacent wet meadow areas. Runoff flowing down much of 1,000 ft. trail segment causing erosion of the trail and depositing sediment into adjacent meadow areas; this in turn is causing areas in meadow to be less wet and shrinking the size of the meadow areas over time.

Figures 3.6 and 3.7 Meadow 17E24-5, rated as not meeting Standard & Guideline #100.

Trail 17E24 crosses two small wet meadows near the west side of Squaw Ridge. The trail intercepts surface and subsurface water from both meadows and routes water down the road. In addition, runoff from the trail has eroded sediment from the trail into the meadows.



Figure 3.8. Field survey form (page 1) for meadow 17E24-5.

Field Survey for Meadows and Roads^{1,2}

Forest: Eldorado National Forest	District: Amador	County:
Observers: Steve Markman, Hydrologist		Date: Sept. 14, 2012 Time:
Number and/or name of road or trail: 17E24.	UTM 6.8 and 6.9 miles from start of road. 10S 075234 ; 4278178	
Meadow reference number: 17E24-5	10S 0752526 ; 4278219	

Characteristics of meadow	
Is the feature a meadow? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Describe what the feature actually is) Two separate small meadows, less than 0.1 miles apart.	
Does the location of the meadow on-the-ground match the information in GIS? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If the answer is no, please describe the difference). Not shown in GIS.	
Wetness of meadow <input type="checkbox"/> Very wet (Standing or flowing surface water present in all or a large portion of feature). (Select the best answer at the time of the survey) <input type="checkbox"/> Moderately wet (Surface water in part of feature and/or ground surface wet in most of feature). <input checked="" type="checkbox"/> Slightly wet (No surface water. Ground surface wet in part of feature). <input checked="" type="checkbox"/> Mostly dry (No surface water. Ground surface dry in most of feature). <input type="checkbox"/> Dry (No surface water. Ground surface dry in entire feature).	
Predominate riparian/wetland vegetation: Willow, corn lily, grasses Abundance and location: Throughout meadow.	Predominant non-riparian/wetland vegetation: Lodgepole pine surrounding meadow. Abundance and location:
Proximity and characteristics of motorized routes in the meadow	
Does the road or trail enter the meadow? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Approx. feet or miles 600 feet (Describe the location of the road or trail with respect to hydrologic features in the meadow.) A total of 600 feet for both meadows.	
Does the road or trail parallel a portion of the meadow (within 100 ft. of the edge of the meadow)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Describe the distance that the road or trail parallels the meadow, and attach photos.)	
Is there evidence of motorized use off of the road or trail and into the meadow? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Describe the evidence, and attach photos.)	
Are there stream channel crossings along the road in the meadow? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Pipes/culverts <input type="checkbox"/> Bridge <input checked="" type="checkbox"/> Raw crossing 1 stream crossing.	
Are there cross drain structures along the road or trail in the meadow? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pipes/culverts <input type="checkbox"/> Rolling dip	

¹ Use a separate survey form for each road or trail and meadow or wetland.² Survey is intended for meadows that are greater than 0.1 acres in size.

(July 11, 2012)

Figure 3.8 (continued). Field survey form (page 2) for meadow 17E24-5.

Field Survey for Meadows and Roads (page 2)	
17E24-5	S. Markman 9-16-12
Condition of meadow	
Active erosion features (rills, gullies, headcuts) in meadow? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If yes, describe the type, number, size, and location of the erosional features and whether they appear to be related to the road or trail.) Denuded areas in both meadows.	
Old, healed erosional features in meadow? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, describe the type, number, size, and location of the erosional features and whether they appear to be related to the road or trail.)	
Hummocky surface in portions of the meadow? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, describe location and aerial extent in meadow).	
If the road(s) or trail(s) goes through the meadow, is the road/trail noticeably affecting the movement of water through the meadow? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If yes, describe the physical evidence). Road cuts through both meadows, intercepts groundwater from the meadow and routes groundwater down the road.	
If the road(s) or trail(s) parallels a portion of the meadow, is the road/trail noticeably affecting the movement of water into or out of the meadow? <input type="checkbox"/> Yes <input type="checkbox"/> No (If yes, describe the evidence). N/A	
Is a road(s) or trail(s) contributing sediment into the meadow to the extent that it is noticeably affecting the size and/or function of the meadow? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If yes, describe the physical evidence). Sediment from road can be traced into both meadows.	
Other land disturbances within the meadow? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If yes to the above, describe types and extent). Cattle grazing.	
Stream flowing through the meadow? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Is stream eroding vertically (i.e. active downcutting)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is stream eroding laterally (i.e. actively widening)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Does stream contain an active headcut(s)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Does stream contain old (healed) headcut(s)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Aquatic species (incidental sightings only – no survey to a specific protocol)	
List aquatic species present, numbers of individuals, and life stage None observed.	
Findings with respect to Standard and Guideline (S&G) #100 of the SNFPA	
<input type="checkbox"/> Yes. S&G #100 is being met with regard to this road/trail and meadow.	
<input checked="" type="checkbox"/> No. S&G #100 is NOT being met with regard to this road and meadow.	
<input type="checkbox"/> I. Inconclusive. Field evidence not sufficient to determine if S&G #100 is being met.	
S&G 100: Maintain and restore the hydrologic connectivity of streams, meadows, wetlands, and other special aquatic features by identifying roads and trails that intercept, divert, or disrupt natural surface and subsurface water flow paths. Implement corrective actions where necessary to restore connectivity.	
Other Comments Both meadows have been recently grazed by cattle.	

Environmental Consequences

Effects Common to All Alternatives

There are 14 routes where Standard and Guideline (S&G) #100 is not applicable with regard to meadows. This is because field surveys in 2011 and 2012 determined that these 14 routes do not cross or border a meadow in the Eldorado National Forest (ENF). The definition and characteristics of a meadow is described in Table 3.6. The eleven routes are: 08N23B, 08N35, 09N04 (17E79), 09N54, 10N06, 10N26, 10N32, 10NY04, 11N09A, 11N22, 11N70, 12NY15, 13N24, and 17E12.

There are 10 routes where Standard and Guideline (S&G) #100 would be met. This is because field surveys in 2011 and 2012 determined that all meadows that cross or border these 10 routes meet S&G #100. The reason that these meadows meet S&G #100 is because the following conditions were met at the time of the field surveys:

- The road or trail does not intercept and divert surface and/or subsurface water from the meadow and route the water away from the meadow such that the meadow has decreased in size and/or wetness.
- Runoff from the road or trail has not eroded sediment into the meadow such that the size and/or wetness of the meadow has decreased.
- Runoff from the road or trail has not caused a stream channel to downcut such that the water table next to the stream has dropped and the size and/or the wetness of the meadow has decreased.

The 10 routes where S&G #100 would be met are: 09N15, 10N03, 10NY05, 10NY06, 12NY06, 14N05, 14N27, 14N58, 17E17, and 17E21. The methodology used to evaluate compliance with S&G #100 is described in more detail in Table 3-6.

Most of the 18 routes that do not meet Standard & Guideline (S&G) #100 will likely not do so for a number of years. The primary reason is that a detailed plan of corrective actions (to attain compliance with S&G #100) for most of the 18 routes does not currently exist, and would require 2 - 10 years to both develop and implement. The 18 routes are: 09N01, 09N08, 09N82 (16E26), 09N83 (19E01), 09N95, 10N01, 10N13 (17E73), 10N14, 10N21 (16E27), 10N98, 11N23F (16E33), 11N26F (16E21), 11NY32, 14N39, 17E16, 17E19, 17E24, and 17E28.

Alternative 1: Proposed Action

There are 18 routes – the same 18 routes that contained at least one meadow that did not meet Standard and Guideline (S&G) #100 - where S&G #100 would no longer apply. This is because a *Forest Plan Amendment* would exempt these 18 routes from S&G #100. The 18 routes are: 09N01, 09N08, 09N82 (16E26), 09N83 (19E01), 09N95, 10N01, 10N13 (17E73), 10N14, 10N21 (16E27), 10N98, 11N23F (16E33), 11N26F (16E21), 11NY32, 14N39, 17E16, 17E19, 17E24, and 17E28.

Adverse impacts would likely continue to occur to 38 meadows. The adverse impacts to each meadow would include one or more of the following:

- The road or trail would continue to intercept and divert surface and/or subsurface water from the meadow and route the water away from the meadow such that the size and/or wetness of the meadow is decreased.
- Runoff from the road or trail would continue to erode sediment into the meadow such that the size and/or wetness of the meadow would decrease.
- Runoff from the road or trail would cause additional stream channel downcutting – this would cause the water table next to the stream to continue to drop and the size and/or the wetness of the meadow would continue to decrease.

Ten OHV trails – all of which are part of the 18 routes that do not meet S&G #100 - would not meet BMP # 4.7.1, item #3a-b of the Region 5 Water Quality Management Handbook (WQMH) of December 2011.^{1,2,3} This is because Alternative 1 (Proposed Action) contains no actions to correct or mitigate adverse impacts to meadows caused by these OHV trails that were identified during the 2011 and 2012 field surveys. BMP 4.7.1, item # 3a-b states: “3. *Identify trail segments causing adverse impacts to water resources and prioritize mitigation measures, such as a.) Relocate existing trails or trail segments that are in high-risk locations, including SMZs, riparian areas, and meadows, to restore surface and subsurface hydrologic function, b.) Reconstruct trails to improve, modify, or restore effective drainage.*”

The ten OHV trails are: 16E26 (09N82), 19E01 (09N93), 17E73 (10N13), 16E27 (10N21), 16E33 (11N23F), 16E21 (11N26F), 17E16, 17E19, 17E24, and 17E28.³

¹ BMP 4.7.1, item #3a-b only applies to OHV trails and not to roads. The handbook *National Best Management Practices for Water Quality Management on National Forest System Lands* (April 2012) contains similar language in pages 91-92 to BMP 4.7.1, item #3a-b of the 2011 WQMH.

² The 2008 TM EIS and ROD was under the WQMH of 2000; this SEIS is under the WQMH of 2011.

³ **Trails** that would not meet BMP #4.7.1, item #3a-b are identified by their **trail** number. For those routes that were converted from a **road** to **trail** through the 2008 Travel Management ROD, the original road number is shown in parenthesis to allow the reader to track between the 2008 EIS and this SEIS.

Alternative 2: No Action

There are 18 routes - the same 18 routes that contained at least one meadow that did not meet Standard and Guideline (S&G) #100 - where Standard and Guideline (S&G) #100 would not be met. This is because Alternative 2 (No Action) does not require that a plan of corrective actions for the 18 routes be developed in order to attain compliance with S&G #100. The 18 routes are: 09N01, 09N08, 09N82 (16E26), 09N83 (19E01), 09N95, 10N01, 10N13 (17E73), 10N14, 10N21 (16E27), 10N98, 11N23F (16E33), 11N26F (16E21), 11NY32, 14N39, 17E16, 17E19, 17E24, and 17E28.

Adverse impacts would likely continue to occur to 38 meadows until corrective actions are taken. The adverse impacts to each meadow would include one or more of the following:

- The road or trail would continue to intercept and divert surface and/or subsurface water from the meadow and route the water away from the meadow such that the size and/or wetness of the meadow is decreased.
- Runoff from the road or trail would continue to erode sediment into the meadow such that the size and/or wetness of the meadow would decrease.
- Runoff from the road or trail would cause additional stream channel downcutting – this would cause the water table next to the stream to continue to drop and the size and/or the wetness of the meadow would continue to decrease.

There are ten OHV trails (that are part of the 18 routes that do not meet S&G #100) that would not meet BMP # 4.7.1, item #3a-b of the Region 5 WQMH of December 2011.

There are two reasons for this conclusion:

- Alternative 2 (No Action) does not contain actions to correct or mitigate adverse impacts to meadows caused by those OHV trails as identified during the 2011 and 2012 field surveys.
- The closure of an OHV trail to public use, by itself, does not correct the reason(s) that the OHV trail is causing a meadow(s) to not meet S&G #100. For example, a trail that intercepts surface and/or subsurface water from a meadow and routes that water down the road and away from the meadow will continue to do so after vehicles are not allowed on the trail. Two examples of this - meadows 17E73-3 and 17E34-5 - are described in *Affected Environment, Figures 3.4 through 3-8*. The reason(s) that a meadow does not meet S&G #100 have been previously described in more detail in *Effects Common to All Alternatives* (paragraph 2) and in Table 3.6.

The ten OHV trails are: 16E26 (09N82), 19E01 (09N93), 17E73 (10N13), 16E27 (10N21), 16E33 (11N23F), 16E21 (11N26F), 17E16, 17E19, 17E24, and 17E28.

Alternative 3

The effects of Alternative 3 are similar to Alternative 1 with one important difference. There are 18 routes - the same 18 routes that contained at least one meadow that did not meet Standard and Guideline (S&G) #100 - where Standard and Guideline (S&G) #100 would be met after corrective measures to the routes have been implemented and the Forest Service has determined that the routes are consistent with Standard and Guideline (S&G) #100. The corrective measures could include one or more of the following:

- Relocation of route segments away from meadows and the subsequent removal of unnecessary route segments near meadows.
- Reconstruction of route segments to direct runoff (and sediment) from meadows.
- Road or trail improvements in meadows that prevent the interception and diversion of surface and subsurface water.
- Structures in route segments that enable vehicles to be suspended above meadows.

Adverse impacts (as described under Alternative 1) would likely continue to occur to 38 meadows until the corrective actions to the 18 routes (that do not meet S&G #100) have been implemented. The adverse impacts to each meadow would include one or more of the following:

- The road or trail would continue to intercept and divert surface and/or subsurface water from the meadow and route the water away from the meadow such that the size and/or wetness of the meadow is decreased.
- Runoff from the road or trail would continue to erode sediment into the meadow such that the size and/or wetness of the meadow would decrease.
- Runoff from the road or trail would cause additional stream channel downcutting – this would cause the water table next to the stream to continue to drop and the size and/or the wetness of the meadow would continue to decrease.

The 18 routes are: 09N01, 09N08, 09N82 (16E26), 09N83 (19E01), 09N95, 10N01, 10N13 (17E73), 10N14, 10N21 (16E27), 10N98, 11N23F (16E33), 11N26F (16E21), 11NY32, 14N39, 17E16, 17E19, 17E24, and 17E28.

There are ten OHV trails (that are part of the 18 routes that do not meet S&G#100) that would meet BMP # 4.7.1, item #3a-b of the Region 5 WQMH of December 2011 after corrective measures to the OHV trails have been implemented such that the routes are consistent with Standard and Guideline (S&G) #100. The ten OHV trails are: 16E26 (09N82), 19E01 (09N93), 17E73 (10N13), 16E27 (10N21), 16E33 (11N23F), 16E21 (11N26F), 17E16, 17E19, 17E24, and 17E28.

Alternative 4

The effects of implementing Alternative 4 are similar to Alternative 1 except for a few differences as described below.

There are 13 routes - all of which crossed or bordered at least one meadow that did not meet Standard and Guideline (S&G) #100 - where Standard and Guideline (S&G) #100 would not be met. There are two reasons for this conclusion:

- The closure of these 13 routes to public use, by itself, does not correct the reason(s) that each route is causing a meadow(s) to not meet S&G #100. For example, runoff from a road or trail that has eroded sediment into a meadow such that the size and/or wetness of the meadow has decreased will continue to do so after vehicles are not allowed on the road or trail. The reason(s) that a meadow does not meet S&G #100 have been previously described in more detail in *Effects Common to All Alternatives* (paragraph 2) and in Table 3.6.
- Alternative 4 does not require that a plan of corrective actions be developed for the 13 routes in order to attain compliance with S&G #100.

The 13 routes are: 09N82 (16E26), 09N83 (19E01), 09N95, 10N01 (10N01B), 10N13 (17E73; closed beyond Schneider Camp), 10N21 (portion between 10NY04E and the section currently open on the west end), 10N98, 11N23F (16E33), 14N39, 17E16, 17E19, 17E24, and 17E28.

There are seven routes – all of which crossed or bordered by at least one meadow that did not meet Standard and Guideline (S&G) #100 - where Standard and Guideline (S&G) #100 would be met after corrective measures to the routes have been implemented and the Forest Service has determined that the seven routes are consistent with Standard and Guideline (S&G) #100. The corrective measures could include one or more of the following:

- Relocation of route segments away from meadows and the subsequent removal of unnecessary route segments near meadows.
- Reconstruction of route segments to direct runoff (and sediment) away from meadows.
- Road or trail improvements in meadows that prevent the interception and diversion of surface and subsurface water.
- Structures in route segments that enable vehicles to be suspended above meadows.

The seven routes are: 09N01, 09N08, 10N13 (segment from highway 88 to just north of Schneider camp meadow), 10N14, a segment of 10N21 (16E27), 11N26F (16E21), and 11NY32.

Adverse impacts would likely continue to occur to the meadows crossed or bordered by the above seven routes until the corrective actions to the seven routes have been implemented. The adverse impacts to each meadow (that does not currently meet S&G #100) would include one or more of the following:

- The road or trail would continue to intercept and divert surface and/or subsurface water from the meadow and route the water away from the meadow such that the size and/or wetness of the meadow is decreased.
- Runoff from the road or trail would continue to erode sediment into the meadow such that the size and/or wetness of the meadow would decrease.
- Runoff from the road or trail would cause additional stream channel downcutting – this would cause the water table next to the stream to continue to drop and the size and/or the wetness of the meadow would continue to decrease.

There are seven routes where corrective measures would be implemented that are not related to meadows and S&G #100. The seven routes are: 08N23B, 08N35, 09N04 (17E79), 10N03, 10N32, 10NY06, and 12NY15. These routes either do not contain meadows or contain meadows that meet S&G #100.

There are eight OHV trails (that are part of the 18 routes that do not meet S&G #100) that would not meet BMP # 4.7.1, item #3a-b of the Region 5 WQMH of December 2011.

There are two reasons for this conclusion:

- Alternative 4 does not contain actions to correct or mitigate adverse impacts to meadows caused by those eight OHV trails as identified during the 2011 and 2012 field surveys.
- The closure of an OHV trail to public use, by itself, does not correct the reason(s) that the OHV trail is causing a meadow(s) to not meet S&G #100. The reasons for this have been previously discussed.

The eight OHV trails are: 16E26 (09N82), 16E33 (11N23F), 17E73 (10N13), 19E01 (09N83), 17E16, 17E19, 17E24, and 17E28.

There are two OHV trails that would meet BMP # 4.7.1, item #3a-b of the Region 5 WQMH of December 2011 after corrective measures to the OHV trails have been implemented such that the routes are consistent with Standard and Guideline (S&G) #100. The OHV trails are: 16E27 (10N21) and 16E21 (11N26F).

Summary

There are 24 routes where there is no difference between the alternatives with regard to Standard & Guideline (S&G) #100. This is because 14 routes do not cross or border meadows and 10 routes cross or border meadows that meet S&G #100.

There are 18 routes – the routes that have caused at least one meadow to not meet S&G #100 - where there are differences between the alternatives with regard to S&G #100. Alternative 1 (Proposed Action) would create a *Forest Plan Amendment* that would exempt those 18 routes from S&G #100. Alternatives 2, 3, and 4 would result in zero, 18, and seven of those 18 routes meeting S&G #100, respectively. This also means that Alternatives 2, 3, 4 would result in 18, 0, and 13 routes not meeting S&G #100, respectively.

It would likely take a number of years for Alternatives 3 or 4 to result in all routes meeting S&G #100.

The above results are summarized in Table 3.9 and Figure 3.9.

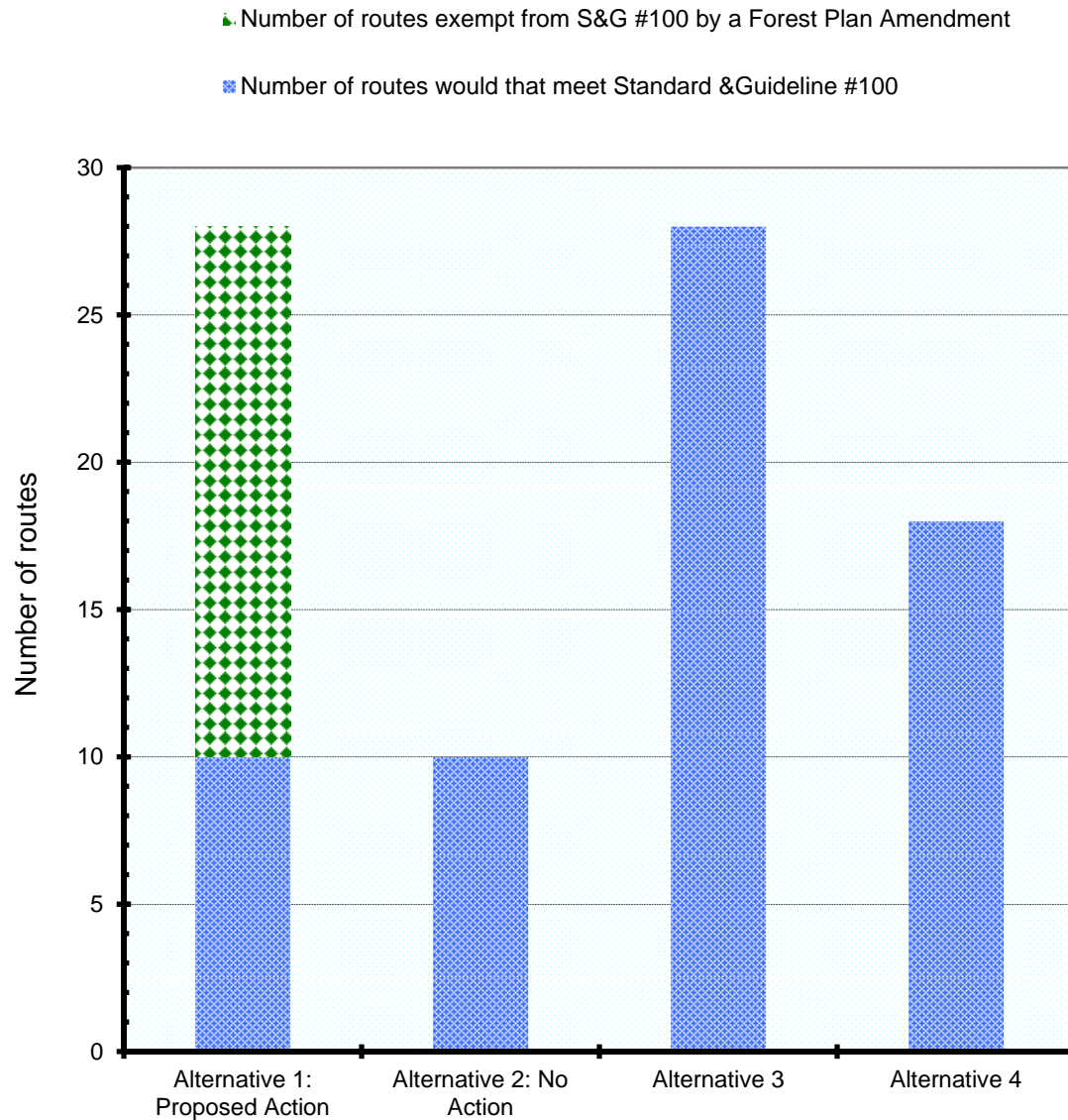
Table 3.9 Summary of compliance with regard to Standard and Guideline (S&G) #100) for each alternative.¹

	List of routes	Alternative 1: Proposed Action	Alternative 2: No Action	Alternative 3: Preferred Alternative	Alternative 4
Routes that do <u>not</u> cross or border meadows.	08N23B, 088N35, 09N04 (17E79), 09N54, 10N06, 10N26, 10N32, 10NY04, 11N09A, 11N22, 11N70, 12NY15, 13N24, 17E12.	S&G #100 <u>not</u> applicable for all routes because routes do not cross or border meadows.			
Routes that only cross or border meadows that meet Standard & Guideline #100.	09N15, 10N03, 10NY05, 10NY06, 12NY06, 14N05, 14N27, 14N58, 17E17, 17E21.	S&G #100 would be met for all routes because all routes currently meet S&G #100.			
Routes that cross or border at least one meadow that does <u>not</u> meet Standard & Guideline #100.	09N01, 09N08, 09N82 (16E26), 09N83 (19E01), 09N95, 10N01, 10N13 (17E73), 10N14, 10N21 (16E27), 10N98, 11N23F (16E33), 11N26F (16E21), 11NY32, 14N39, 17E16, 17E19, 17E24, 17E28.	All routes would be <u>exempt</u> from S&G #100 as a result of a <i>Forest Plan Amendment</i> .	S&G #100 would <u>not</u> be met for all routes because no corrective measures to the routes would be implemented.	S&G #100 would be met for all routes <u>after</u> corrective measures to the routes are implemented.	S&G #100 would <u>not</u> be met for 13 routes. ² S&G #100 would be met for 7 routes <u>after</u> corrective measures are implemented.

¹ Standard and Guideline (S&G) #100 of the Sierra Nevada Forest Plan Amendment Record of Decision (SNFAROD 2004): “*Maintain and restore the hydrologic connectivity of streams, meadows, wetlands, and other special aquatic features by identifying roads and trails that intercept, divert, or disrupt natural surface and subsurface water flow paths. Implement corrective actions where necessary to restore connectivity.*”

² Under Alternative 4, a segment of route 10N13 (17E73) and 10N21 (16E27) would meet S&G #100 and a segment would not meet S&G #100.

Figure 3.9 Number of routes that would meet Standard & Guideline #100 for each alternative.^{1,2}



¹ For all alternatives, does not include the 14 routes where S&G #100 does not apply (because these routes do not cross or border meadows) and does include the 10 routes that currently meet S&G #100.

² For Alternative 1 (Proposed Action), the 18 routes that would be exempt from S&G #100 as a result of a *Forest Plan Amendment* are the 18 routes that currently do not meet S&G #100.

Riparian Conservation Objective Analysis

This SEIS replaces the portion of the Riparian Conservation Objective (RCO) Analysis in the March 2008 FEIS that pertains to meadows, Standard and Guideline #100, and the 42 routes. All portions of the RCO Analysis in the March 2008 FEIS that do not pertain to meadows, Standard and Guideline #100, and the 42 routes remain intact. The following specific items in the RCO Analysis in the March 2008 FEIS are replaced as described in the Table below:

Item in the Riparian Conservation Objective (RCO) Analysis of the March 2008 FEIS	Description of replacement in the 2013 SEIS
Riparian Conservation Objective (RCO) #2, pages 3 and 4.	<ul style="list-style-type: none"> • The criteria for evaluating each alternative of this SEIS is described in the <i>Affected Environment, Analysis Framework</i>. • The definitions and methodology for evaluating Standard & Guideline #100 is described in the <i>Affected Environment, Table 3.6</i>.
Table 2 (Analysis of Riparian Conservation Objectives for each alternative), RCO #2, Alternatives E and Modified B, page 7.	The effects of each alternative of this SEIS with regard to Standard & Guideline #100 are described in <i>Environmental Consequences</i> .
Table 2 (Analysis of Riparian Conservation Objectives for each alternative), RCO #5, Alternatives E and Modified B, page 9.	
Table 7 (Analysis of system routes through meadows for Alternatives E and Modified B), pages 28-39.	<ul style="list-style-type: none"> • The number of meadows crossed and/or bordered by each route is in the <i>Affected Environment, Table 3.4</i>. • A summary of the results of the field surveys of the 42 routes is the <i>Affected Environment</i> in <i>Tables 3.5, 3.7, and 3.8</i>.

Recreation

Affected Environment

Background

The 42 routes being considered in this document are located on three Ranger Districts of the Eldorado National Forest. Most of the routes are located in the higher elevations, over 6,000 feet. High elevation roads and trails offer a different recreation experience than lower elevation trails. There are not a large number of high elevation 4WD recreation opportunities across the Forest. High elevation trails provide access to remote areas on the Forest, especially for older and less able individuals who might otherwise not be able to enjoy these areas. High elevation trails have cooler temperatures during the summer months than those in the lower elevations, and often have sweeping views and beautiful fall colors. The setting for these routes is more desirable for camping due to greater solitude and scenic quality. Some of the routes are also used by hikers, mountain bikers and equestrians. Some provide vehicle access to other hiking and equestrian opportunities, including day hikes into the Desolation and Mokelumne Wilderness areas. The higher elevation routes also offer access for deer and quail hunting during hunting season, and access for fishing along streams and lake shores. The routes also provide access for photography, geocaching, bird watching and wildlife viewing, and spiritual pursuits.

The 42 routes being considered offer a variety of levels of challenge for recreation users. Some of the routes are fully developed Forest roads, while others are passable only with specialized vehicles. Several of the routes, such as the Barrett 4wd Trail, Squaw Ridge 4WD Trail, Strawberry 4WD Trail, and Clover Valley 4WD Trail offer multi-day recreation opportunities with camping. The Barrett 4WD Trail offers a level of challenge for 4WD users that is relatively unique in the Region, allowing users to test their technical skills in travelling over large boulders. Only a few other 4WD trails in the Sierra Nevada offer a similar level of challenge, including the Rubicon Trail on the Eldorado National Forest and Fordyce Creek Trail on the Tahoe National Forest.

A number of the 42 routes being considered have been in use for over a hundred years, being remnants of early emigrant trails over the Sierra Nevada. Others have been in place for multiple generations, and many users have established treasured family traditions of bringing the younger and older generations along on trips. Exposing family and friends to the Forest through OHV recreation also fosters a love of the Forest in younger generations and provides interpretive opportunities.

RECREATION VALUES OF THE 42 ROUTES:

Placerville Ranger District

Leek Springs Valley (09N15)

Route 09N15 is a native surface road approximately 0.5 miles long that ends at the northeast corner of private property in the Leek Spring Valley area. This road is popular for high elevation scenic driving , for hunting, and provides access to the North Fork Cosumnes River for fishing.

Leoni (09N54)

Route 09N54 is a native surface road that enters the SW corner of the Leoni Meadows Private Camp. The road does not provide the main access into camp, but serves as a route for scenic driving and hiking. This road is open to all vehicles and is used by Forest visitors for access to the Forest, driving for pleasure, fuel wood gathering, hunting, and as a route for horseback and mountain bike riding by camp attendees.

Pebble Ridge (10N06)

Route 10N06 is a native surface road that connects two paved roads 10N59 and 10N58 in the Pebble Canyon area which is popular for scenic driving, dispersed camping and for hunters. The road is approximately 2 miles long and parallels a tributary of Camp Creek which is popular for fishing.

Strawberry 4WD Trail (portion of 10N13, now 17E73)

The northern portion of route 10N13 (17E73), also known as Strawberry 4WD trail, is used primarily by 4WD enthusiasts seeking a lower level of difficulty 4WD recreational experience. Forest visitors can access the Strawberry 4WD Trail from either the Placerville Ranger District (RD) side or the Amador RD side (via 10N13 Schneider Camp Road). The trail offers ample recreational activities such as hiking, photography, bird watching, mountain biking and wildflower viewing. The Strawberry 4WD Trail continues to be a destination for 4 wheel drive activities, especially in the late spring and early summer; however, it is not as intensively used as other trails such as the Rubicon Trail. Routes 10N13 and 17E73 combined are approximately 6.73 miles long. Except for a limited amount of the total length of the trail, the trail does not provide “extreme” 4WD conditions. The Gold Hill Posse (GHP) 4WD club has “adopted” the Strawberry 4WD Trail since 2002. This volunteer group routinely provides trail maintenance including re-enforcing water bars to redirect water from the trail. The GHP have contributed approximately 500 hours of volunteer labor since 2002, and are still active participants in the Adopt-A-Trail program.

Mule Canyon (10N14)

Road 10N14 provides motor vehicle access to the Cody Meadows area which is a hub for hiking, hunting, OHV use, camping, wildflower viewing and many other recreational activities. Mule Canyon provides access to some of the highest elevations on the Placerville Ranger District (7000' and above elev.); the route also has spectacular views of the surrounding areas, including Desolation and Mokelumne Wilderness Areas.

Long Canyon 4WD Trail (10N21, now 16E27)

Route 10N21 (16E27), also known as the Long Canyon 4WD trail, is used by 4WD vehicle operators who favor a lower level of difficulty 4WD motorized recreational experience. The Long Canyon 4WD Trail provides a 'loop' with several other routes and continues to be a destination for 4WD activities; however, it is not as intensively used as other trails such as the Rubicon Trail. The Long Canyon 4WD Trail is approximately 4 miles long and is also used for hiking, mountain biking and hunting. A segment of the trail provides a panoramic view of the forest and is a popular destination for forest recreation, both motorized and non-motorized. Except for a limited amount of the total length of the trail, the trail does not provide "extreme" 4WD conditions. Forest visitors can access the Long Canyon 4WD Trail from either the Silver Fork Road or the Packsaddle Road. The NorCal FJ Cruisers "adopted" the Long Canyon 4WD Trail in 2011. This volunteer group provides trail maintenance including the removal of trash from the trail and adjacent lands. In addition they provide peer to peer informational services to other OHV users on the trail regarding proper use of the forest and resource protection. They contributed approximately 100 hours of volunteer labor during the summer of 2011 and are still active.

Sciots Creek (10N26)

This route provides motor vehicle access to the Placerville Ranger District's Cody Lake, which is used by recreationists year round. The route is easily accessed off the paved Packsaddle Road. The road is used annually by the Boy Scouts of America to access 'Camp Cody' where they have had a Special Use Permit for the camp for over 60 years. Additionally, this route provides access to the Cody Meadows area which is a hub for hiking, fishing, hunting, camping, OHV use, snowshoeing, cross country skiing and many other recreational activities.

South Beanville Creek (10N32)

The 10N32 is a native surface road that is adjacent to the Alder Ridge Lookout in the Beanville Creek area which is popular for scenic driving and hunting.

Jim Quinn Spur (10N98)

Route 10N98 is a native surface road that leaves the north side of the popular paved Mormon Emigrant Trail Road along Iron Mountain Ridge adjacent to a large rock conglomerate known as “Brown Rock”. The road provides a nice vista along the ridge for approximately 1.5 miles long before it dead-ends. This road is popular for scenic driving and for dispersed camping.

Upper Long Canyon (10NY06), Rocky Road (10NY05) and Middle Long Canyon (10NY04)

Route 10NY06, 05 and 04 roads provide motor vehicle access to the Cody Meadows area which is a hub for hiking, hunting, camping and many other recreational activities. These routes provide access to some of the higher elevations on the district with spectacular panoramic views of the surrounding areas, including Desolation and Mokelumne wildernesses. These roads provide additional ‘loops’ surrounding the Long Canyon 4WD Trail.

Bryan Creek (11N09A) and Sayles Canyon Trailhead

The end of the 11N90A road is a well-developed trail head that is used for accessing Sayles Canyon Trail and the Pacific Crest National Scenic Trail. Sayles Canyon trail is a popular high elevation non-motorized trail offering many hiking, equestrian and some mountain bike activities. The high elevation environment and meadows along the hiking trail, also affords forest visitors many nature based recreational activities including wildflower walks, bird watching and photography. The relative ease of the trail provides a near wilderness experience for forest visitors who otherwise may not be able to enjoy such areas. The Bryan Creek Road is also used as a permitted access road for Sierra-at-Tahoe Ski Resort’s West Bowl area to maintain and service the ski lifts in the summer. In 2011 volunteers successfully completed the ‘Sayles Canyon Trailhead Improvement Project’ including repair and resurfacing the existing trailhead loop, cleared the roadside of overgrown brush, delineated and graded parking areas within the existing trailhead area. The volunteer group “Elegant Ears Equestrians” and other equestrian groups contributed approximately 941 hours of volunteer labor and over \$7,000 dollars in donations for materials and equipment use to improve the trailhead.

Strawberry Creek (11N22)

Route 11N22 provides motor vehicle access to the Strawberry Creek area which is popular for hiking, hunting, wildflower viewing and camping. The trail provides access to some of the higher elevations on the Placerville Ranger District along Strawberry Creek.

North Shanty Spur (11N23F, now 16E33)

The North Shanty Spur Trail provides motor vehicle access to the Bark Shanty area which is popular for hiking, hunting, 4WD travel and camping. The trail provides access to some of the higher ground on the Placerville Ranger District along the paved Packsaddle Road.

47 Milestone (11NY32)

The route is the only access into the Aspen Creek Summer Home Tract. This short piece of road begins at Highway 50, just west of Phillips. The route accesses several summer home cabins before it ends at private property.

Lover's Leap Motorcycle Trail (17E12)

Route 17E12 is a relatively short and low challenge route that provides access for motorcycles to the top of Lover's Leap with an exceptional view of the Strawberry area and Highway 50 corridor. The trail is also very popular for hiking to the top of Laver's Leap with panoramic views of the Highway 50 corridor and Desolation Wilderness peaks. The trail is heavily used by rock climbers to access both the east and west climbing walls.

Bucks Pasture Motorcycle Trail (17E17)

This trail connects the Cody Meadow area and the Strawberry 4WD Trail. The trail is open to motorcycle, mountain bike and equestrian use as well as hiking. This challenging single track trail provides a remote forested route with an elevation gain from 7000 feet to 8500 feet and nice views. It is popular in the summer and fall for hiking to Buck's Pasture meadow and for wildflower and wildlife viewing, and in the winter and spring for snowshoeing, snowmobiling and cross country skiing.

Amador Ranger District**Squaw Ridge Trail (9N82, now 16E26)**

This trail system begins approximately 1 mile northeast of Onion Valley and runs into the Historic Carson Emigrant Trail along the ridge. The trail is very popular with 4WD vehicles, All Terrain Vehicle's (ATV's) and motorcycles. Portions of this trail are challenging as there are sections that are very rocky, steep and narrow. Horseback riding, biking and hiking are also popular on portions of the trail system. Much of this trail is the northern boundary of the Mokelumne Wilderness. The Squaw Ridge Trail has a wilderness trailhead for the non-motorized trail leading to Munson Meadow. Since most of this trail is on top of a ridge and high elevation, the views are spectacular. Access to this trail is via Bear River Reservoir or Tragedy Springs at Highway 88, following the Carson Emigrant National Recreation Trail (Mud Lake Trail).

Carson Emigrant National Recreation Trail (Mud Lake Trail) (9N04, now 17E24 & 17E79)

This trail begins near Tragedy Springs. It takes off south of Highway 88 and ties in with the Squaw Ridge Trail where it turns north and serves as an extension of the Squaw Ridge Trail. This route, like the Squaw Ridge Trail, is popular with 4WD's, ATV's and motorcycles. The route is challenging, and is not recommended for regular 2-wheel drive vehicles. It provides a link for motorcycle users between Allen's Camp Trail 17E19 and Horse Canyon Trail (17E21). This route accesses Mud Lake, a popular dispersed camping area, and 2 wilderness trailheads, Beebe Lake and Horse Canyon. It has grand views in all directions, including Silver Lake and Pyramid Peak to the north, and Mokelumne Wilderness and Mokelumne peak to the south. Popular hikes accessed from the trail include Beebe Lakes, Melissa Coray Peak, and down Horse Canyon to the Mokelumne River.

A new staging area was recently developed at the beginning of Mud Lake Trail south of Highway 88. Off Highway Vehicles (OHV's) and equestrians will use this staging area. Trail maintenance is done by the Motherlode Rockcrawlers 4x4 Club.

Allen's Camp Trail (17E19)

This 4 mile long motorcycle trail begins at the Allen's Camp Trailhead just south of Plasses' Resort at Silver Lake, and intersects with 17E24, where the trail is very steep and rocky. It is a challenging route with good views.

Horse Canyon Motorcycle Trail (17E21)

The Horse Canyon Trail begins at the staging area approximately 0.5 mile north of Silver Lake on Highway 88. The trail ties in at to the Carson Emigrant National Recreation Trail (17E24) at the east end of Squaw Ridge. Along with motorcycle use, this trail gets a lot of equestrian, hiking and biking use. This trail intersects with the Thunder Mountain Hiking Trail and the Castle Point Trail. The upper end of the trail is braided through stands of aspen, heather and hemlock. This challenging single track route is one of the few motorcycle trails of this kind available for public use, [provides a unique experience. Some users like to travel a loop that comprised of 17E21, 17E19, 17E28 and 16E26.

Long Valley Motorcycle Trail (17E28)

This motorcycle trail runs a 3 mile course from Mud Lake to the west end of the Squaw Ridge Trail. The trail runs over granite and through the woods. It is a popular route for technical motorcycle riding, with beautiful creeks and ponds and places along the way to picnic. Horseback riding, biking and hiking also occur on this trail. This trail crosses Bear River, several other tributaries and skirts along Long Valley.

Stockton Camp (9N08)

This road accesses Stockton Municipal Organization Camp. It is mainly used by camp workers and clients. Hundreds of visitors use Stockton Municipal Camp each season.

Clover Valley/Deer Valley Trail (9N83, now 19E01)

The Deer Valley Trail begins just south of Lower Blue Lake and heads in a southerly direction through a 300 foot corridor through the Mokelumne Wilderness. After about 7 miles of challenging travel, it ends on Highway 4 on the Stanislaus National Forest. This trail is very popular with 4WD's, ATV's and motorcycles. The scenery is spectacular. Horseback riding, biking and hiking are also popular. This trail crosses Blue Creek and Deer Creek, where there are a scattering of popular campsites. The road follows the historic Big Tree Carson Valley Wagon Road which was used as an emigrant road since 1857. It is also the route "Snowshoe Thompson" used for many years to deliver mail. This is a connector route between Highway 88 and Highway 4.

Twin Lake/Meadow Lake Road (9N01)

This 2 mile section of road begins just south of Lower Blue Lake at the intersection of 9N01 and 9N83. It accesses a developed PG&E day use area at Twin Lakes and the Meadow Lake Trailhead at the end of the road. This road is open to all vehicles.

Schnieder Camp Road (10N13)

This road begins at the end of Alpine County Road-164 , and provides access to Schneider Cow Camp, a popular dispersed camping area for equestrians, and access to routes 17E16, 17E73, 17E17 and 17E77. This portion of road is open to all vehicles. The road connects with the Strawberry 4WD Trail, which ends near Strawberry on Highway 50.

Little Round Top (17E16)

This trail is currently designated for motorcycle use to the top of the ridge, where the motorized portion ends. The foot trail continues from on top of the ridge and drops down to connect with the Pacific Crest Trail. The majority of this trail is on the Placerville District. This trail is a popular fall ride for motorcycle users.

Woods Lake Spur (10N01B)

This portion of road, which used to be old Highway 88, begins at Alpine County Road-122 and ends on Highway 88 just west of Carson Pass. This stretch of road, open to all vehicles, has numerous dispersed campsites. Segments of the Historic Emigrant Trail follow or parallel this road.

Devils Gate Summer Home (10N03)

This short piece of road begins at Highway 88, east of Carson Spur and, accesses eight Forest Service permitted summer homes (recreation residences) before it dead ends at private property.

Cosumnes Head (9N95)

This road, from Foster Meadow Road to 9N95B is partially paved. This road is open to all vehicles and is primarily used during hunting season. It is a popular route used each summer for non-commercial permitted handcart treks.

Prothro Headwater (8N23B)

This road is approximately 2 miles in length, begins at Mehrten Springs Road and ends at a private property boundary. It is open to all vehicles, and is primarily used by firewood cutters and hunters.

Upper West Panther (8N35)

This road is between Panther Creek and Panther Ridge Road. The road is approximately 1.5 miles in length. It is used primarily by fuel wood cutters.

*Pacific Ranger District***Barrett Lake 4WD Trail (11N26F, now 16E21)**

This trail begins at the north end of Wrights Lake Recreation area and ends at Barrett Lake, a beautiful alpine lake approximately 6 miles north of the trailhead. The trail is very popular with 4WD vehicles, but has some use from ATV's, motorcycles, and bicycles. It is a favorite route of 4WD clubs and families. It is a great trail drive in and park for access to hiking opportunities to Red Peak and lake destinations in the Desolation Wilderness. Portions of this trail are quite challenging as there are sections that are very rocky, steep and narrow. The entrance is through a gate, which is designed to limit the maximum width of vehicles entering the trail. The gate is opened seasonally when the Hi-Landers (a volunteer group that has adopted the trail) complete spring maintenance and the District Ranger determines that the trail is in a condition to prevent resource damage, usually in mid-July. The trail has high use daily while it is open. The gate is closed in the fall when heavy rain or snow create conditions that could lead to resource damage.

McManus (11N70)

This road begins approximately 3.5 miles off the White Meadows road, and primarily runs through private property, accessing areas of Soldier Creek. It is used as access for

hunting, fuel wood cutting, dispersed camping, and target shooting. This road can be used by all vehicles.

Crystal Shortcut (12NY06)

This road is used primarily to access dispersed camping areas south of Union Valley Reservoir, as well as motorcycle and ATV touring. It is used by all types of vehicles.

West Robbs Peak (12NY15)

This road begins off the main route to Robbs Peak Lookout, and can be used by all vehicles. It is used primarily to access areas for hunting, dispersed camping, and target shooting.

Dry Lakes (13N24)

This is a loop road that connects Wentworth Springs Road on the northeast end to the Southfork Loop Road on the south. This road can be used by all vehicles, and is used for access to the Deer Creek Trail, leading down to the Rubicon River. Primary use is hunting, with some motorcycle and ATV activity.

McKinstry Lake (14N05)

This route, accessible by all vehicles, has high recreation value for camping, hiking, and OHV use. It is used daily from the time snow melts in the spring until snow closes it in the winter. It provides access to the McKinstry Trail, and is used to access many dispersed camping areas. It is approximately 5 miles long, and terminates near the Rubicon Trail, providing pedestrian access. It is also a popular area for hunting in the fall.

Bunker Meadow (14N27)

This road is almost seven miles to its end, and provides access by all vehicles to areas used extensively in the late summer and fall for hunting. It also is the access for hiking to Bunker Lake.

Richardson Lake (14N39)

This road is on the far northeastern end of the Forest, and must be accessed through roads leading from the Lake Tahoe area. It is used to access Richardson Lake for camping and fishing, and travel to the top of Sourdough Hill to enjoy the scenic vistas, including a good view back towards the Rubicon Trail. The route also provides access to the Pacific Crest Trail. A 4WD vehicle must be used to reach this road.

Jerrett (14N58)

This is a spur road off of the McKinstry road, passing alongside McKinstry Lake and ending on the southwest side of Jerrett Peak. It is used primarily by 4WD and OHV's, and accesses areas for dispersed camping, viewing, and fall hunting.

Indicator Measures

Two indicator measures were used for this analysis. The first is a relative recreation value rating that was assigned to each route based on a set of criteria explained below. The second indicator measure used was whether the route is a high country route (traverses ground over 6,000 feet in elevation). High country routes represent a unique recreation opportunity in the Sierra Nevada, and many of the historic high country routes have been closed to public motorized use in the past, so few routes of this type remain available for public motorized recreation use.

Rating of Recreation Values Associated with the 42 Routes

For the purpose of this analysis, the following criteria have been used to provide a rating of recreation access and opportunities for the 42 routes. The criteria are similar to those that were used in the 2008 Travel Management FEIS, Appendix H, to rate recreation values associated with Intermittent Service Roads (NFS Level 1 Roads).

Low

- Routes which provide only a very limited recreation opportunity, such as a short route which accesses no specific dispersed recreation opportunity; or
- Routes which provide access to a recreation opportunity that is very common, such as access for hunting in an area with many other routes of comparable opportunity; or
- Routes which have a low level of use because of the lack of public recreation opportunities.

Medium

- Routes which provide only a moderate level of recreation opportunity, such as an access route to a moderately popular dispersed recreation opportunity; or
- Routes which provide access to a recreation opportunity that is somewhat unique, such as access to stream reaches popular for fishing in an area lacking many other comparable opportunities; or
- Routes which provide recreation opportunities along the road which are not motor vehicle based, such as horseback riding, etc.

- Routes which have a moderate level of use because of the presence of public recreation opportunities or proximity to population centers; or
- Routes which provide a diversity of public recreation opportunities, such as dispersed camping, fishing, swimming, etc., and/or a diversity of opportunities for public wheeled motor vehicles, such as 4WD, ATV, motorcycle, etc.

High

- Routes which provide a high level of recreation opportunity, based on either a diversity of recreation opportunities or a single opportunity which is very popular. This may include access routes to popular dispersed recreation opportunities or several high quality recreation opportunities which are not common within the general area; or
- Routes which access Forest developed recreation opportunities, such as staging areas, trailheads, etc.; or
- Routes which provide access to a recreation opportunity that is somewhat unique, such as access to a popular swimming hole or cascade/waterfall in an area lacking many other comparable opportunities, or
- Routes which have a moderate to high level of use because of the presence of public recreation opportunities or proximity to population centers; or
- Routes which provide a high level of diversity of public recreation opportunities, such as dispersed camping, fishing, swimming, etc. and/or a diversity of opportunities for public wheeled motor vehicles, such as 4WD, ATV, motorcycle, etc.; or
- Routes which create loops or connect with other routes to provide recreation opportunities; or
- Routes which serve a role within popular riding or travel areas, such as roads to staging areas.

Table 3.1 Rating of Recreation Value for the 42 Routes

<i>Number</i>	<i>Name</i>	<i>Low</i>	<i>Medium</i>	<i>High</i>	<i>High Country (Above 6000 feet elevation)</i>
Routes found by USFS to not cross or border meadows on National Forest land					
08N23B	Prothro Headwater		X		Y
08N35	Upper West Panther	X			N
09N04 (17E79)	Pardoe 4WD			X	Y
09N54	Leoni		X		N
10N06	Pebble Ridge	X			N
10N26	Sciots Creek/Cody Lake			X	Y
10N32	South Beanville Creek		X		partially
10NY04	Middle Long Canyon			X	partially
11N09A	Bryan Creek (Sayles Canyon Trailhead)			X	Y
11N22	Strawberry Creek		X		Y
11N70	McManus		X		N
12NY15	West Robbs Peak		X		Y
13N24	Dry Lakes	X			N
17E12	Lovers Leap Trail			X	Y
Routes found by USFS to meet Standard & Guideline #100					
09N15	Leek Springs Valley		X		Y
10N03	Devils Gate	X			Y
10NY05	Rocky Road (Long Canyon)			X	Y
10NY06	Upper Long Canyon			X	Y
12NY06	Crystal Shortcut	X			N
14N05	McKinstry Lake			X	Y

14N27	Bunker Meadow		X		Y
14N58	Jerret		X		Y
17E17	Bucks Pasture			X	Y
17E21	Horse Canyon Trail			X	Y
Routes found by USFS to not meet Standard & Guideline #100					
09N01	Blue Lakes (Twin Lake/Meadow Lake)			X	Y
09N08	Stockton Camp			X	Y
09N82 (16E26)	Squaw Ridge 4WD			X	Y
09N83 (19E01)	Clover Valley/Deer Valley			X	Y
09N95	Cosumnes Headwater		X		Y
10N01B	Woods Lake Spur			X	Y
10N13	Schneider Camp/Strawberry			X	Y
10N13 (17E73)	Schnieder Camp/Strawberry 4WD			X	Y
10N14	Mule Canyon			X	Y
10N21 (16E27)	Long Canyon 4WD			X	Y
10N98	Jim Quinn Spur		X		Y
11N23F (16E33)	North Shanty Spur			X	Y
11N26F (16E21)	Barrett 4WD			X	Y
11NY32	47 Milestone			X	Y
14N39	Richardson Lake/Sourdough Hill			X	Y
17E16	Little Round Top		X		Y
17E19	Allen's Camp Trail		X		Y
17E24	Carson Emigrant National Recreation Trail			X	Y
17E28	Long Valley Trail			X	Y

Direct Effects to Recreation

Effects of Alternative 1 (Proposed Action)

In Alternative 1, all of the routes temporarily closed under the court order in 2012 would be reopened for public motorized use according to the type of use established in the 2008 Eldorado National Forest Travel Management Environmental Impact Statement and Record of Decision. For the 42 routes, approximately 95.8 miles of roads and trails rated high in recreation value would be open to public motorized use. Approximately 42.1 miles of 4WD routes, all rated high in recreation value, would be open. Approximately 18.5 miles of high country motorcycle routes would be open, all rated medium to high in recreation value. Users would be able to continue enjoying these traditional motorized routes and the portions of the Forest they access. None of the 42 routes rated medium or high recreation value would be closed to public motorized use. A summary of the miles of routes that would be reopened is provided in Table 3.2.

Effects of Alternative 2 (No Action)

In Alternative 2, all portions of the 42 routes that are currently closed would remain closed to public motorized use. The 30 miles of high value recreation routes that were not closed by court order would remain open, with 65.9 miles of high value recreation routes closed to public motorized use. Approximately 11.2 miles of high country 4WD trails would remain open, all rated high in recreation value, and 30.8 miles of high country 4WD trails would remain closed, all rated high in recreation value. This represents 65 percent of the total 4WD trail opportunities on the Eldorado National Forest over 6,000 feet in elevation. All of the high country motorcycle trails, approximately 18.5 miles, rated medium to high recreation value, would be closed to public motorized use. This represents 90 percent of the total motorcycle trail opportunities on the Eldorado National Forest over 6,000 feet in elevation. Routes that are closed to public motorized use may remain open to non-motorized trail uses, resulting in an increase in the non-motorized trail opportunities on the Eldorado National Forest. A summary of the miles of routes that would be open and closed is provided in Table 3.2.

Effects of Alternative 3

In Alternative 3, approximately 53.4 miles of high value recreation routes would be open to public motorized use, with an additional 42.4 miles of high value recreation routes would be continue to be part of the NFTS but would not be designated for public motorized use and identified on a Motor Vehicle Use Map (MVUM) until the routes are in compliance with Standard and Guideline 100 as it pertains to meadows. Approximately 11.2 miles of high country 4WD trails would remain open, all rated high in recreation value, and an additional 30.8 miles of high country 4WD trails routes would be continue to be part of the NFTS but would not be designated for public motorized use and

identified on a Motor Vehicle Use Map (MVUM) until the routes are in compliance with Standard and Guideline 100 as it pertains to meadows. All of the high country motorcycle trails, approximately 18.5 miles, rated medium to high recreation value, would be routes would be continue to be part of the NFTS but would not be designated for public motorized use and identified on a Motor Vehicle Use Map (MVUM) until the routes are in compliance with Standard and Guideline 100 as it pertains to meadows. None of the medium or high value recreation routes are designated closed to public motorized use. It is estimated that analyzing and implementing necessary mitigation measures designed to meet Standard and Guideline #100 could take a number of years, depending upon available funding sources. A summary of the miles of routes that would be open and closed is provided in Table 3.2.

Effects of Alternative 4

In Alternative 4, approximately 35.7 miles of high value recreation routes would be open to public motorized use, with an additional 13.4 miles of high value recreation routes would be continue to be part of the NFTS but would not be designated for public motorized use and identified on a Motor Vehicle Use Map (MVUM) until corrective actions or mitigation are analyzed and implemented, and 46.7 miles of high value recreation routes closed to public motorized use. Approximately 9 miles of high country 4WD trails would remain open, all rated high in recreation value, and an additional 7.9 miles of high country 4WD trails would be continue to be part of the NFTS but would not be designated for public motorized use and identified on a Motor Vehicle Use Map (MVUM) until corrective actions or mitigation are analyzed and implemented. Approximately 25.3 miles of high country 4WD trails would be closed, all rated high in recreation value. This includes many very popular routes such as the Strawberry 4WD Trail, Squaw Ridge 4WD Trail, Carson Emigrant National Recreation Trail, and Clover Valley/Deer Valley Trail. Approximately 53 percent of the total 4WD trail opportunities on the Eldorado National Forest over 6,000 feet in elevation would be closed. All of the high country motorcycle trails, approximately 18.5 miles rated medium to high recreation value and representing 90 percent of the total motorcycle trail opportunities on the Eldorado National Forest over 6,000 feet in elevation, would be closed to public motorized use. This represents 90 percent of the total motorcycle trail opportunities on the Eldorado National Forest over 6,000 feet in elevation. Routes that are closed to public motorized use may remain open to non-motorized trail uses, resulting in an increase in the non-motorized trail opportunities on the Eldorado National Forest. It is estimated that analyzing and implementing necessary mitigation measures designed to meet Standard and Guideline #100 could take a number of years, depending upon available funding sources. A summary of the miles of routes that would be open and closed is provided in Table 3.2.

Table 3.2 Direct Recreation Effects by Alternative

	Alternative 1 Proposed Action	Alternative 2 No Action	Alternative 3 Preferred Alternative	Alternative 4
Miles of High Recreation Value Routes open to public motorized use	95.8	30.0	53.4	35.7
Miles of High Recreation Value Routes open to public motorized use after mitigation	0	0	42.4	13.4
Miles of High Recreation Value Routes closed	0	65.9	0	46.7
Miles of High Country (all high recreation value) 4WD Trail open	42.1	11.2	11.2	9.0
Miles of High Country (all high recreation value) 4WD Trail open after mitigation	0	0	30.8	7.9
Miles of High Country (all high recreation value) 4WD trail closed	0	30.8	0	25.3
Percentage of total High Country 4WD trail on Eldorado NF closed	0	65%	0	53%
Miles of High Country (all medium to high recreation value) Motorcycle Trail open	18.5	0	0	0
Miles of High Country (all medium to high recreation value) Motorcycle Trail Open after mitigation	0	0	18.5	0
Miles of High Country (all medium to high recreation value) Motorcycle Trail closed	0	18.5	0	18.5
Percentage of total High Country Motorcycle Trail on Eldorado NF closed	0	90%	0	90%

Indirect Effects to Recreation

In addition to the direct affects to recreation under each alternative, there are some additional routes that would be indirectly affected under each alternative other than the proposed action, resulting in a decrease in mileage available for recreation. These roads and trails are routes that are accessed by one of the 42 routes planned to be closed or opened after mitigation in that alternative. These routes are currently designated open to motorized use under the 2008 Eldorado National Forest Public Wheeled Motorized Travel Management EIS and Record of Decision, but they are not currently displayed on the MVUM since they cannot be reached without travelling on a portion of one of the 42 routes currently closed to public motorized use pending completion of this SEIS. In alternatives where they are not shown closed, the routes would be added back on to the MVUM after a decision is issued on this SEIS.

In Alternative 2, No Action, 11.2 miles of additional routes would be affected. In Alternative 3, 8.1 miles would be affected until corrective actions are completed on the respective access routes. In Alternative 4, 9.3 miles would be affected until corrective actions and/or mitigation is completed on the respective access routes.

Table 3.3 Indirect Recreation Effects by Alternative

	Alternative 1 Proposed Action	Alternative 2 No Action		Alternative 3 Preferred Alternative		Alternative 4	
<i>Access route (one of the 42 routes)</i>	<i>Additional Routes affected</i>	<i>Additional Routes affected</i>	<i>Miles closed</i>	<i>Additional Routes affected</i>	<i>Miles closed until corrective actions on access route</i>	<i>Routes affected</i>	<i>Miles closed until corrective actions or mitigation onf access route</i>
08N23B	none	none	--	none	--	none	--
10N06	none	none	--	none	--	none	--
10N26	none	10N26B 10N26C	0.4 0.3	none	--	none	--

		10NY06B	0.6				
10NY04	none	none	--	none	--	none	--
11N09A	none	none	--	none	--	none	--
11N22	none	none	--	none	--	none	--
11N70	none	none	--	none	--	none	--
12NY15	none	12NY15A 12NY15B 12NY15D	0.2 0.2 0.2	none	--	12NY15A 12NY15B 12NY15D	0.2 0.2 0.2
13N24	none	none	--	none	--	none	--
17E12	none	none	--	none	--	none	--
08N35	none	none	--	none	--	none	--
09N04 (17E79)	none	none	--	none	--	none	--
09N15	none	09N15A	0.3	none	--	none	--
10N03	none	none	--	none	--	none	--
10N32	none	none	--	none	--	none	--
10NY05	none	none	--	none	--	none	--
10NY06	none	10NY06B	0.6	none	--	10NY06B	0.6
12NY06	none	none	--	none	--	none	--
14N27	none	14N27F	0.2	none	--	none	--
17E17	none	none	--	none	--	none	--
17E21	none	none	--	none	--	none	--
09N54	none	none	--	none	--	none	--
09N01	none	none	--	none	--	none	--
09N08	none	none	--	none	--	none	--
09N82 (16E26)	none	none	--	none	--	none	--
09N83 (16E01)	none	none	--	none	--	none	--

09N95	none	none	--	none	--	none	--
10N01B	none	none	--	none	--	none	--
10N13	none	none	--	none	--	none	--
17E73	none	none	--	none	--	none	--
10N14	none	10N04 10N04A 10N04B 10N14A 10N14H 10N14HA 10N14HB 10N14B (17E74) 10N26D	2.8 0.2 1.0 0.4 0.5 0.1 <.1 1.7 .2	10N04 10N04A 10N04B 10N14A 10N14H 10N14HA 10N14HB 10N14B (17E74) 10N26D)	2.8 0.2 1.0 0.4 0.5 0.1 <.1 1.7 .2	10N04 10N04A 10N04B 10N14A 10N14H 10N14HA 10N14HB 10N14B (17E74) 10N26D)	2.8 0.2 1.0 0.4 0.5 0.1 <.1 1.7 .2
10N21 (16E27)	none	none	--	none	--	none	--
10N98	none	10N98B	0.4	10N98B	0.4	10N98B	0.4
11N23F (16E33)	none	none	--	none	--	none	--
11N26F (16E21)	none	none	--	none	--	none	--
11NY32	none	none	--	none	--	none	--
14N05	none	14N58A 14N58B	0.5 0.3	none	--	none	
14N58	none	See 14N05	See 14N05	none	--	14N58A 14N58B	0.5 0.3
17E19	none	none	--	none	--	none	--
17E24	none	none	--	none	--	none	--
17E28	none	none	--	none	--	none	--
14N39	none	none	--	none	--	none	--
Total miles of routes affected	0	--	11.2	--	8.1	--	9.3

Chapter 4. Consultation and Coordination

Preparers and Contributors

The Forest Service consulted the following individuals, Federal, State, and local agencies, tribes and non-Forest Service persons during the development of this supplemental environmental impact statement:

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Amador County Board of Supervisors

El Dorado County Board of Supervisors

El Dorado County Sheriff

El Dorado County Fish and Game Commission

California State Parks, Off-Highway Motor Vehicle Recreation Division

California Regional Water Quality Control Board, Central Valley Region

California Department of Fish and Wildlife, Region 2

Tahoe National Forest

Stanislaus National Forest

Lake Tahoe Basin Management Unit

Tribes:

Jackson Rancheria

Shingle Springs Rancheria

Buena Vista Rancheria of Me-wuk Indians

Washoe Tribe of Nevada and California

United Auburn Indian Community

Ione Band of Miwok Indians

Sierra Native American Council

El Dorado County Indian Council

Colfax-Todd Valley Consolidated Tribe

Distribution of the Environmental Impact Statement _____

This supplemental environmental impact statement has been distributed to individuals who specifically requested a copy of the document and those who submitted scoping comments. In addition, copies have been sent to Federal agencies, federally recognized tribes, State and local governments, and organizations.

Glossary

All-terrain vehicle (ATV): A type of off-highway vehicle that travels on three or more low pressure tires, has handle-bar steering, is less than or equal to 50 inches in width, and has a seat designed to be straddled by the operator.

Designated road, trail or area: A NFS road, NFS trail, or an area on NFS lands that is designated for motor vehicle use pursuant to 36 CFR part 212.51 on a motor vehicle use map (36 CFR 212.1).

Highway-licensed vehicle (highway legal vehicle): Any motor vehicle that is licensed or certified under State law for general operation on all public roads within the State. Operators of highway legal vehicles are subject to State traffic law, including requirements for operator licensing.

Motor Vehicle Use Map (MVUM): A map reflecting designated roads, trails, and areas on an administrative unit or a Ranger District of the NFS (36 CFR 212.1).

Motorcycle: A two-wheeled vehicle on which the two wheels are not side-by-side but in line.

Motorized trail (4WD Trail): A travel way usually, but not always, less than 50 inches in width, and usually, but not always, available for use by all-terrain vehicles (ATV's) and motorcycles. These travel ways may also be made available to high-clearance four-wheel drive vehicles, and may also be used by bicycles, horses and hikers.

Public motorized use: In this document, the term is used to refer to travel by the general public using a motor vehicle which is any vehicle that is self-propelled, other than: (1) a vehicle operated on rails, skids or tracks; and (2) any wheelchair or mobility device, including one that is battery powered, that is designed solely for use by a mobility-impaired person for locomotion **and** that is suitable for use in an indoor pedestrian area. Motor vehicle in this context includes passenger vehicles, 4WD vehicles, all-terrain vehicles (ATVs), motorcycles, recreational vehicles (RVs), pick-up trucks, utility-terrain vehicles (UTVs), sport utility vehicles (SUVs), all-wheel drive vehicles, etc.

Road: A motor vehicle route over 50 inches wide, unless identified and managed as a trail (36 CFR 212.1).

National Forest Transportation System (NFTS): The system of NFS roads, NFS trails, and airfields on NFS lands (also referred to as the Forest Transportation System in 36 CFR 212.1).

Route: A road or trail.

Trail: A route 50 inches or less in width or a route over 50 inches wide that is identified and managed as a trail (36 CFR 212.1).

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Appendices

Appendix A: Crosswalk of Road and Trail Numbers _____

The following road numbers have been changed since the Final Travel Management EIS:

Road Number previously used in ENF TMEIS	Name	New Number
09N04	Pardoe 4WD	17E79
09N82 (southern xx miles)	Squaw Ridge Trail	16E26
09N83	Clover Valley/Deer Valley Trail	19E01
10N01	Spur off Woods Lake	10N01B
10N13 northern 6.8 miles)	Strawberry 4wd Trail	17E73
10N21 (whole route)	Long Canyon 4WD Trail	16E27
11N23F	North Shanty Spur	16E33
11N26F	Barrett Lake	16E21
NSR1014A		10N14H
NSR1014AA		10N14HA
NSR1014AB		10N14HB

Appendix B: Scoping Comment Summary _____

Committer Number	Comment/Issue	Significant Issue	Alternative
5, 6, 8, 9, 10, 11, 17, 20, 21, 22, 23, 27, 28, 30, 33, 40, 52, 53, 57, 76, 81, 108, 110, 118, 126, 130, 135, 141, 143, 172, 174, 181, 193, 194, 200, 204, 209, 234, 224, 217, 213, 211, 212, 189	In favor of the proposed action		
4, 7, 12, 13, 14, 57, 59, 61, 63, 64, 77, 79, 178, 188, 197	In favor of roads or trails being reopened (in general)		
1,2,15, 16, 18, 19, 29, 36, 40, 52, 54, 58, 62, 95, 102, 180, 184	Keep trails open/reopen trails. It is important to my family.		
19, 31, 42, 58, 74, 89, 111, 113, 115, 116, 119, 120, 122,	Keep open <u>all</u> of the 42 routes that are under review.		

124, 137, 140, 173, 177, 191, 195, 198, 202, 205, 208, 213, 214, 215, 216, 221, 223, 225, 227, 230, 239, 238, 237, 231, 241, 242, 212			
55, 174, 177	Please amend the Forest Plan if necessary to keep the routes open.		
2, 7, 18, 25, 32, 40, 52, 58, 66, 78	I, my family members, or others not "fit and able" need motorized access to be able to enjoy the outdoor scenery.		
3, 24, 25, 32, 38, 39, 41, 51, 62, 67, 68, 75, 78, 179	Opposed to road and trail closures (in general)		
5,7, 29, 55, 61, 79	Many of these routes have existed for decades if not centuries with minimal impact		
36, 37, 51, 52, 53, 57, 58, 59, 74	So many favorite motorized trails (one commenter mentioned Pearl Lake trail) have already been closed or lost over time - please don't close any more.		
53, 174	Closure of the 42 routes resulted in greater impacts to legitimate public recreation than was reflected by the route mileage of the 42 routes alone.		
53, 58, 59, 83, 94,	Failure to designate these routes would result in a motorized trail network of insufficient size, scope and diversity to meet		

113, 191, 212	the need for public access.		
14, 18, 26, 29, 33, 36, 54, 56, 66, 71, 72, 76, 77, 79, 81, 115, 117, 137, 193, 204	I would like to volunteer time to work on maintaining and improving these routes/Recommend partnerships with OHV user groups to do work on the roads and trails to reduce erosion, protect sensitive areas.		
15, 77, 127	With some mitigating strategies for meadows and streams, these traditional OHV roads can and should remain open.		
16, 18, 30, 33, 39, 51, 55, 66, 68, 75, 78, 81, 102, 109, 137, 144, 172, 187, 188, 193, 195, 200, 209, 211, 235, 236, 238, 240	Trail closures negatively affect the local economy.		
66, 73, 75, 76, 80, 81, 125	Closure of these trails results in greater impacts on the remaining few available local trails, both on the ground and in terms of user safety as use becomes concentrated (Rubicon specifically mentioned)		
21	I would like to see more enforcement of rules on our OHV trails. If people followed the rules, conflict would be reduced.		
55, 56, 65, 66, 69, 71, 79, 80, 81, 85, 87, 88, 98, 99, 100,	I do NOT support seasonal closure of trails such as Strawberry and Deer Valley beyond the Forest wide wet weather closure similar to how the Barrett Lake 4WD		

107, 109, 110, 115, 123, 124, 125, 130, 135, 136, 139, 141, 194, 198, 200, 208, 211, 248	Trail is managed. These two routes are connectors between highways. Please no gates.		
77, 209	If no other mitigation is appropriate or available, willing to accept seasonal closure of the most sensitive areas as long as closures are based/implemented on actual observation/measurement of conditions (such as they do at Georgetown and Mammoth Bar after rainfall) rather than an inflexible calendar-based schedule		
72	Request Deer Valley trail to remain open to OHV use. Propose a reroute at the meadow area of concern. Details provided.		
26,36, 37, 116, 117, 216	Keep Barrett Lake accessible to the wheeled public. It is a great trail to go hiking from as it gets you near the peaks and lakes.		
26,29, 91, 102, 111, 116, 117, 140, 205, 216, 219, 212	Keep Deer Valley Trail open to the public.		
26, 36, 40, 111, 116, 117, 205, 216, 212	Keep Strawberry Trail 17E73 open. This trail is a local favorite.		
36	Support for keeping 17E12 (Lovers leap), 17E16 (little round top), 17E17, 10N14, 10N13, 17E24, 9N04, 17E79, 16E26,		

	17E28, 17E21, 17E19, 19E01 (Deer Valley), 09N01 (Meadow Lake), Barrett Lake, 16E21, 14N27, 14N05, 14N58 open.		
	We like to ride our quads from mud lake parking area and ride the roads to Squaw Ridge and up the Martel Flats (17N24, 09N04, 09N82) and walk from there to little lakes. Also ride to Pardoe Lake area and to Mud Lake.		
43, 96	Support keeping open 17E12 (Lovers Lap), 17E17 (Bucks Pasture), 17E21 (Horse Canyon), 17E19 Allen's Camp Motorcycle trail), 17E28 Long valley Trail (Mud lake), and 9N82 (Squaw Ridge).		
210	We adamantly opposed to the closure of 9N01 and all of 9N83. 9N83 has been in place since the late 1800's and is historic in nature. By closure of this road you are specifically closing a Handicapped parking site that was required to be built by FERC. By forest closures of any type you are depriving the public in general and handicapped specifically of use of the forest.		
77, 78	List of favorite routes to keep open with descriptions		
70	Keep open 09N15 Leek Springs Valley; 09N95 Cosumnes Head; 10N98 Jim Quinn Spur; 09N23B Prothero Headwater. The roads are not a hazard. Past impacts from logging and grazing are healing.		
93	Trails such as Barrett, Strawberry, and Deer Valley are held dear to the OHV community. I would hope the FS could give		

	the user base a "heads up" so we are not surprised at the last minute closures.		
122	I think it is important to restore access to all meadow routes, especially Jerrett Peak/McKinstry Lake area.		
100	I want to encourage you to do everything that you can to reopen as many miles of roads and trails as you can, hopefully by next summer.		
129, 207, 220, 227, 228, 127	Closing motorized access means only healthy people can enjoy public land. The vast majority of Americans are not capable of that, so if they want to get out in nature they are dependent on motorized access.		
	Roads and trails as identified by Mr. Guidice 17E12, 17E16, 17E17, 17E19, 17E21, and 17E24 are important to the 4wd community.		
226	Keep the squaw ridge and horse canyon trail open. The OHV people have a right to use this public land.		
233	You closed all the best trails that I have been using for the past 14 years. The state is taking our RV money and giving us nothing in return. Refund our green sticker money or open the trails.		
116, 204, 127	If a portion of a route is found to be causing harm to an adjacent meadow please fix it and not close it.		

84, 90, 103	I support your plan and appreciate the timely effort to come up with a plan to keep our forest open to all user groups.		
32	Concern about Emergency Medical Services not being able to get to people in trouble		
14N39 access to Richardson Lake			
55, 66, 81, 86, 88, 98, 117, 124, 130, 141, 168, 181, 194, 198, 200, 201, 203, 207, 218, 220	In favor of proposed action with the retention of 14N39 Richardson Lake/Sourdough Hill in its entirety.		
47, 48, 54, 56, 65, 66, 69, 73, 80, 81, 109	Request entire length of 14N39 Richardson Lake 4wd trail remain open to the top of Sourdough Hill.	Richardson Lake is not the main destination on that trail. Users enjoy a drive to the summit of Sourdough Hill to enjoy the views and the sunset.	Proposed Action modified to designate Richardson Lake route in its entirety.
54, 81	Friends of the Rubicon is interested in including 14N39 to top of Sourdough Hill in their scope of responsibility for maintenance.		
	SMUD personnel visit these two stations infrequently, up to a few times per year for routine O&M purposes or emergency		

	repairs. SMUD would like to clarify that the portion of 14N39 proposed for closure to public vehicle use would continue to be open for administrative purposes, which would include SMUD vehicle use and snow cat use for operating and maintaining the two stations. SMUD is willing to work with the ENF to develop an acceptable solution.		
65, 130	Richardson Lake route to the top of Sourdough Hill will continue to see administrative use by SMUD. Recommend forest undertake mitigation/BMP's in the area of concern much like the County has done on the Rubicon and ask that SMUD maintain it.		
Do Not Amend Forest Plan			
34, 44, 45, 46, 60, 104, 131, 133, 134, 142, 145, 146, 147, 128, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 243, 190, 185, 176, 167, 166	Do NOT amend the Forest Plan to allow roads and motorcycle trails in meadows.	Amending the Forest plan and allowing these vehicles in sensitive meadow habitats will result in impacts to hydrology, natural vegetation and wildlife habitat.	Alternative 3
134, 142, 145, 146,	These routes are used by an exclusive few to the detriment of		

147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 176, 185	our water quality and quantity, wildlife and sensitive plans. Closing the routes will not deny public access, but only motorized access.		
34	Concern that ORV riders do not limit their activities to designated routes. Designated roads become whole areas impacted by machines that destroy habitat.		
Inadequate field surveys			
97, 132	Determinations by filed surveys that certain routes do not currently meet S&G 100 seem vague and the three criteria used insufficient, and the determination to open them seems arbitrary and capricious.		
97, 132	Scoping letter needed to state whether the TM SEIS was going to be processed under the old planning guidelines or the new National Forest System Land Management Planning rule.		
97, 132	To insure compliance with S&G 100, an assessment of the effect of each meadow road on groundwater movement must be made and included in the TM SEIS or its accompanying NEPA documents. Such assessments should be consistent with GTR-WO-86a.		
97, 132	Methodology section of Table 2 of the Hydrology and Watershed Resources Meadow Survey Results uses the word		

	substantial when referring to compliance with S&G 100. However S&G 100 has no such qualifier; under S&G 100 a route either alters surface and subsurface water flow or it doesn't.		
97, 132	2008 RCO analysis being used was based on GIS analysis. Site specific information related to presence/absence of aquatic and aquatic-dependent species including yellow-legged frog was scant.		
97, 132	Because S&G 100 is integrally linked to other Standards and Guidelines in RCO #2, to insure compliance with all Standards and Guidelines in this Objective, the TM SEIS needs data sets from an aquatic biologist, botanist, and soil scientist that demonstrate consistency with the Standards and Guidelines, not just inconsistency.		
97, 132	There is a lack of discussion in TM SEIS on amount of vehicle use a road will receive when it is open to public use during periods when the soils will be saturated, the time when rutting or other damage to meadow roads is most likely to occur.		
97, 132	Proposed action includes no corrective actions to move the routes found inconsistent with S&G 100 towards compliance even though the PA would open them to public use.		
Closure of all routes			
50	In favor of keeping as many roads closed as possible.		No action

Request for specific routes			
49	Object to opening 17E12 Lovers Leap Trail, which crosses a meadow and ends at a foot trail.		
49	Object to opening of 11N09A past meadow complex in the Sierra at Tahoe ski area due to illegal gunfire and access provided by this road at intersection of Pony Express Trail. Or consider seasonal closure after Aug 31 through hunting season to protect recreation residents from gunfire and threat to personal safety.		
49	Recommend closing the Little Round Top trail as it crosses on and near a huge seasonal wet area of meadows and springs near the junction of the PCT.		
243	Some of the routes are in close proximity to the PCT and pose potential impact to the Trail and the experience it affords hikers and equestrians. Impacts to the PCT should be one criterion used in this SEIS when considering which routes to open to motorized use. The following list of routes should be considered: 19E01, 10N01B, 10N13, 17E16, 11N09A, and 14N39.		
Outside the scope of the project			
31	Unhappy with the one "car length" rule		
106	The US District Court never considered if the LRMP blanket meadow restriction is appropriate or not, without this consideration the court did not condone it. The history record		

	reflects that the ENF has made a significant error and omission in the LRMP by including the blanket restriction of OHV routes in meadows. This action has denied the public due process and has allowed the Forest Service to avoid disclosure of a rationale, scientific basis for not allowing routes in meadows.		
22	Request Caples Creek, Government Meadows, trail from/to Caples Creek /Martin Meadow CG/staging area designated		
28, 222, 224	Support for reroutes around meadows or bridges rather than closing parts of some trails		
47	If you must close the current route to Sourdough Hill due to a meadow, please recognize and add to your maps the original route to the summit which still exists to the north of Richardson Lake.		

Appendix C: List of Commenters During Scoping _____

Commenter Number	Commenter	Commenter Number	Commenter
1	Ryan Merryman	126	John Knight, El Dorado County BOD
2	Michael Lopazan	127	Lawrence Cabodi
3	Ralph Deckard	128	Virginia Mason
4	Andy Bajka	129	Nelson Hallgren
5	Justin Hensley	130	Jesse Barton, RTF
6	Michael Payne	131	Kay Osborn
7	Brigitta Hopkins	132	Karen Schambach, PEER, CBD, Sierra Club, Forest Issues Group, Wilderness Society, CNPS
8	n6oft	133	Monte Hendricks
9	John Bollman	134	Tripp Mikich
10	Steve Gosney	135	Will Schultz
11	Tim Cacy	136	Nick Pearson
12	Michael Boehm	137	Todd Beckstead
13	Carl Burris	138	James Munson, EPA Region 9
14	Stu Wik	139	Waqas Shafi
15	Edward Lynch	140	Tim Coolbaugh
16	Laurence Doyle	141	Colby DeRodeff
17	Rickard Kerri	142	Ritt
18	Eli Casey	143	
19	Mark Zimmerman	144	Keith and Antoinette Davis
20	William Morison	145	Law Offices of Sharon E.

			Duggan
21	Patrick Quilter	146	Amy Hoffman
22	Dave Wood	147	Mesonika Piecuch, ORV Watch Kern County
23	Perry Myers	148	Constance Clark
24	Jason Neuschmid	149	Gail Cosmo
25	James Alderink	150	Daisy Haines
26	Doug Barr	151	Bill Center
27	David Meek	152	
28	James Erickson	153	Sharia Smith
29	Jeff Zeber	154	John Kuppung
30	Gary Redmond	155	Sarah Pender
31	Bill Karr	156	Jacqueline Morgan
32	Kim Knox	157	
33	Matthew York	158	Pam Evans
34	Philip Klasky	159	Patricia Constance
35	Robert Stack	160	Ramona Douglas
36	Jim Williams	161	Penny Humphreir
37	Jim Williams and Garrett Heapy	162	Mac Harms
38	Steve R	163	Robin Center
39	Ies	164	Charles Rose
40	Harvey and Cherilyn Bolton	165	Lloyd Evans
41	Jon Huck	166	Shirley Harman
42	Timothy Sumrall	167	Ken Humphreys
43	Sean Cowan	168	Ken Dapore

44	Janet Cobb, California Oaks	169	Curtis Backhaus
45	Jack Fuller	170	Tim Downs
46	Margie Lopez Read	171	Chuck Iley, Amador County
47		172	Jill Johnson
48	Gary Lefler	173	Catherine Otto
49	Harold Thomas	174	Rob Andrae
50	Frederick Allebach	175	Bill Andrae
51	Keith & Antoinette Davis	176	Cliff Onme
52	Geoff Beasley	177	Penny Humphreir
53	Blue Ribbon Coalition (Don Amador)	178	Mac Harms
54	Ken Hower	179	Robin Center
55	Bryan and Hillarie Bunting and "Public Lands for the People, Inc."	180	Charles Rose
56	Rick Ferdon	181	Mike Demaso
57	Nathan Cloud	182	
58	Nate, Amy, Ashley, Ava, and Abigail DeLaney	183	Don
59	Orion Weihe	184	Jan and John Le Pouvoir
60	Pam Nelson	185	Steve Handling
61	Jim Stanley	186	Peter Jones
62	Dan Reid	187	Jim Bramham, Cal 4wd
63	Terry Taylor	188	George and Frances Alderman

64	Randy Barnes	189	Sherry Stortroen
65	Jim Arenz	190	Joe Davis, SMUD
66	Kenneth Kelso	191	Travis Feist
67	Kenneth Sturdevant	192	Amy Granat, CORVA
68	Helen Temps	193	Tim Burns
69	Brian Mix	194	Bob Jones
70	Catherine Ciofalo	195	James Steyding
71	Pete Newell	196	Randy Burleson
72	Robert Lightfoot	197	Mike Demaso
73	Adam and Alina Hansel	198	
74	Sean McKenna	199	Don
75	Robert Norton	200	Jan and John Le Pouvoir
76	Karl Hankins	201	Mike Hower
77	Stuart Frazer & Remie Diva	202	Ken Clarke
78	Dirk Paulin	203	Monica Hower
79	The Beasley Family	204	Eric Zappe
80	Jerry Reffner	205	Kevin Shaddy
81	Rusty Folena Friends of the Rubicon Director Rubicon Trails Foundation	206	George Allen
82	John Arenz	207	John Chilcote
83	Chris Lubas	208	Kevin Smith
84	Michael Demaree	209	Dustin Destruel
85	Derek Randolph	210	Melanie Sue Bowers

86	Bryan Bunting	211	Connor Foad
87	Lisa Heck	212	Dave Picket
88	Morgan DeRoedeff	213	Jeff Gillis
89	Zach Iddings	214	Josh Jenson
90	Hunter Gallant	215	Jon Larson
91	Jeff Leung	216	Keith Hansen
92	Annie Walker	217	Peggy Parda
93	Kurt Schneider	218	
94	Nora Lee	219	Donald Spuhler
95	Stuart Smith	220	Deb Tatman
96	Bill and Mary Andrae	221	Austin Adrian
97	Eric Holst	222	Earl Curtis
98	Craig Ervin	223	Mark Bennett
99	Chris Clark	224	Sherry Curtis
100	Patrick Peterson	225	Terry Nielson
101	Dennis Scroggins	226	Gilbert Gensolis
102	Dan Orork	227	Bob Reeder
103	Ron McDonnell	228	Dave Richards
104	Lyn McClure	229	Maurice Plasse
105		230	Tom Minger
106	Rick Guidice, CERA	231	Allen Ross
107	Bill DeMasters	232	Stan Kromhols
108	Bruce Hendrickson	233	Earl Carr
109	Christine Cowan	234	Carolyn Gilmore
110	Jeff Malfatti	235	Jim Adrian
111	Mr. and Mrs. Clarke	236	Sue and Lin Hokana

112		237	Bob Reid
113	Frank Havik	238	Jeanie Reid
114	Justin Holm	239	David Warhall
115	Steve Hersh	240	John and Trinell Knechtli
116	Paul Enstrom	241	Russ Otto
117	Mark Beguelin	242	Marjorie Lucas
118	Darren Madams	243	Justin Kooyman
119	Keith DeMartini	244	Nial Maloney
120	Mike Kocis	245	Austin Ford
121	Jason Church, UFWDA	246	Janet Cicero
122	Scott Linden	247	Joe Atkins
123	Jacquelyne Theisen	248	Shaun Harrington
124	Phil Johnson	249	
125	Justin Mosley	250	